AD-A140 776 A PLAYER'S MANUAL FOR A COMPLEX DISASTER DECISION 1/2
SIMULATION(U) MILTON S HERSHEY MEDICAL CENTER HERSHEY
PA DEPT OF BEHAVIORAL SCIENCE R M POGASH ET AL. JAN 84
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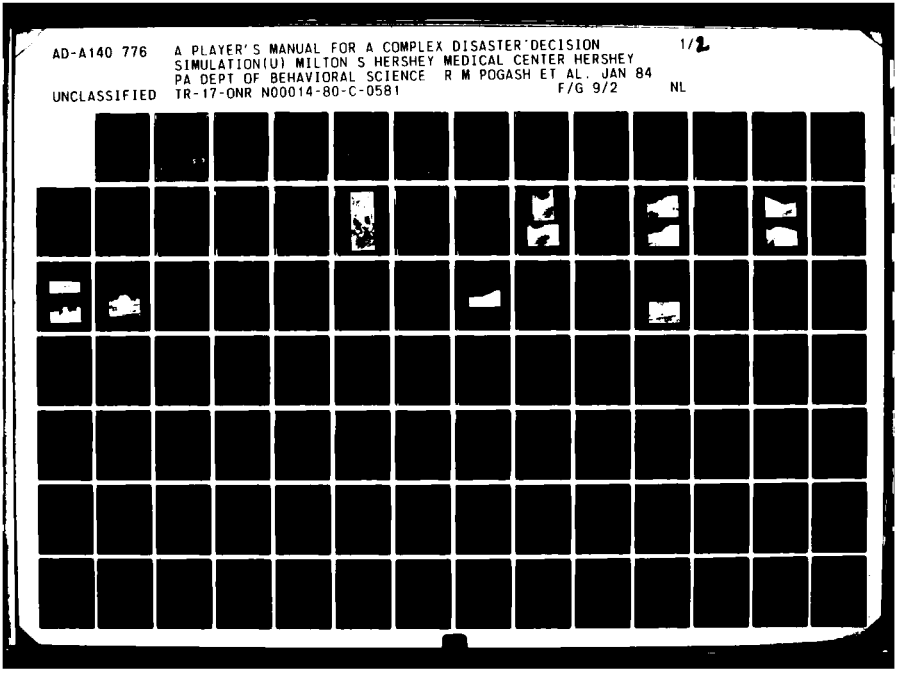

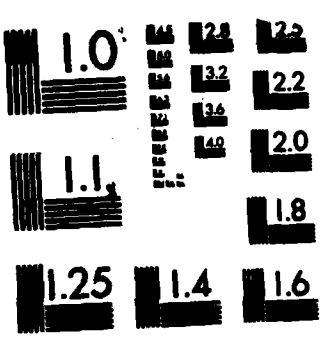

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This technical report contains the participant's manuals for a complex micro-computer assisted experimental decision making simulation which may be used to assess decision making characteristics (fifteen or more computer scored measures of performance quantity and quality such as use of strategy and decision coordination) of individuals or teams. The scenario is geared to a disaster event but may be modified to fit any complex decision environment.

→ next page

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OVERVIEW

One of the tasks in a research contract between the Office of Naval Research and Pennsylvania State University College of Medicine, Siegfried Streufert, Principal Investigator, was the development and application of a complex simulation system. The system was to be computer aided. The system was to provide an experimentally controlled and highly complex (real world like) decision making task that would permit

(1) the application of various independent variables,

(2) variable manipulation across time segments for "within" data analyses,

(3) the simultaneous application of a variety of stressor variables, where useful,

(4) the measurement of physiological (noninvasive) responsivity to task stress in complex tasks,

(5) the measurement of a host of performance variables, with particular emphasis on structural (information to decision processing) characteristics, and

(6) the measurement of social and organizational stressor impacts such as task satisfaction and task enjoyment.

To obtain a complex decision making task, that would be of general interest and would be equally familiar/unfamiliar to most participants, a number of potential scenario areas were investigated. The decision to employ a disaster scenario was made. Disasters are remotely familiar to most persons from reports in the media. However, few persons have actually experienced a major disaster. The involvment or potential involvment of a number of organizations, persons, agencies, military units and so forth provide the necessary complexity and general applicability. Preliminary tests indicated

that the disaster content would be ideal for present purposes.

Participants in this quasi-experimental simulation (c.f., Streufert and Swezey, in press) spend several hours making decisions in the simulation setting, controlling the activities of various organizations, units and personnel. They are aided by an assistant who enters their decisions into a micro-computer system with considerable accessory storage capacity. The computer provides (programmed) information about events across time. Where the information received by participants are responses to previously made decisions, the information, nonetheless, reflects program characteristics.

All decisions made by participants and the relationships among their decisions (including relationships among information received and subsequent decisions) are recorded by the computer system. On demand, the computer generates fifteen or more performance scores which reflect a range of decision making characteristics of the participant(s). These scores range from simple counts of, for example, the number of decisions made during specific task conditions to complex calculations for decision/strategy coordination. The measures utilized in the simulation system have been discussed in previous technical reports (c.f., Streufert, 1983a).

The simulation system and scenario characteristics may be adapted (with considerable effort) to any complex task. Specific measures may be developed to estimate optimal task performance within that (simulated) task. Clearly, these measures may be validated against any criterion task environment. Validations for the present scenario have been successfully obtained (c.f., Streufert, 1983b, 1984).

This technical report contains the participants' manuals for the disaster simulation system as it is currently designed. The first two manuals: (1) the Operations Manual, and (2) the Disaster Response Manual are often presented

to participants before they arrive at the simulation setting (e.g., the evening before). The Technical Manual is made available shortly before the simulation begins. After reading the Technical Manual, the participants are presented with a 20 minute Video Tape which reemphasizes the earlier manual instructions and provides filmed visual material on the supposed geographic location of the simulation. Photographs in the manual are original color reproductions. They are xeroxed for the purposes of this technical report. Color photographs may be obtained in their original form from the authors.

OFFICE OF THE GOVERNOR

STATE HOUSE

January 1, 1994

Upon the recommendations of the State Office of Emergency Services and the Commissioners of Woodline County, the Governor of the State is pleased to confirm your appointment as Emergency Control Coordinator for District 4, Woodline County. For your information, a package of materials is enclosed which describes the structure of the State's emergency control system, the responsibilities of your new position, the important characteristics of your area of jurisdiction, and a detailed background of relevant factors pertaining to emergency response in District 4. In the event that you are called to active duty for the management of an emergency situation, it will be to your advantage to be familiar with the information contained herein.

We offer our best wishes for your success in carrying out the duties of this office.

For the Governor,

Richard J. Lamb

STATE OFFICE OF EMERGENCY SERVICES

OPERATIONS MANUAL

EMERGENCY CONTROL COORDINATOR

WOODLINE COUNTY, DISTRICT 4

STATE OFFICE OF EMERGENCY SERVICES
OPERATIONS MANUAL

EMERGENCY CONTROL COORDINATOR
WOODLINE COUNTY, DISTRICT 4

Structure of the State's Emergency Control System

The State Office of Emergency Services (OES), in coordination with the Office of the Governor, has established a state-wide system for dealing with the control and consequences of a wide variety of potential emergency and disaster situations, including both natural and man-made occurrences. In order to provide a workable unit for the management of disasters, each county in the State has been divided into several Emergency Control Districts. In the case of a locality-contained emergency situation, each of these districts may function independently. In the case of a more wide-spread disaster, affecting more than one District or the entire State, each may function in co-operation with other Districts and with the State Office of Emergency Services.

Each Emergency Control District maintains a relatively small full-time staff which is headed by an Associate Emergency Control Coordinator. The duties of this staff during non-emergency periods are to act as a liaison with the State OES and to track and report the development of potential emergencies or disasters in their area of jurisdiction.

In the event of an actual emergency, responsibility for the operation of the District is handed to the Emergency Control Coordinator for that District. This position is held by an individual who is appointed by the Governor for a four-year term. Although in most cases, the Emergency Control Coordinator for a District comes to active duty only in times of emergency, he or she is

expected to be familiar with emergency control procedures and to maintain awareness of potentially emerging crises requiring his/her action. In times of active duty during an emergency, the Emergency Control Coordinator has final responsibility for management of the emergency.

The information in this manual refers to the responsibilities of the Emergency Control Coordinator for District 4 of Woodline County.

Duties of the Emergency Control Coordinator

In the event of an actual or threatened emergency, the Emergency Control Coordinator is called to active duty by the Governor of the State in coordination with the State Office of Emergency Services. You will be notified if and when you are called to active duty. You will also be informed, to the degree possible, of the situation which has developed leading to your activation.

The goal of the Coordinator is to reduce loss of life, personal injury and property damage which are the potential consequences of an emergency by the appropriate use of all available resources. Your job is to coordinate and direct all necessary manpower and equipment needed to accomplish this goal, to maintain an overview of all pertinent aspects of the emerging or actual situation, and to make and appropriately transmit all necessary decisions in order to accomplish the above. In this respect, it is considered essential and extremely important to make note of the information and events which led up to any decision you make and to make note of any other future decisions you may be planning to make. Keeping track of these aspects of your planning is extremely vital in order to maintain continuity in the control of an emergency. This becomes especially critical if you, for whatever reason, are permanently or temporarily unable to carry out your duties which must then be taken over by someone else.

In order to simplify and expedite your decision making, planning, and record keeping, you will be provided with up-to-date computer facilities, operated for you by an assistant.

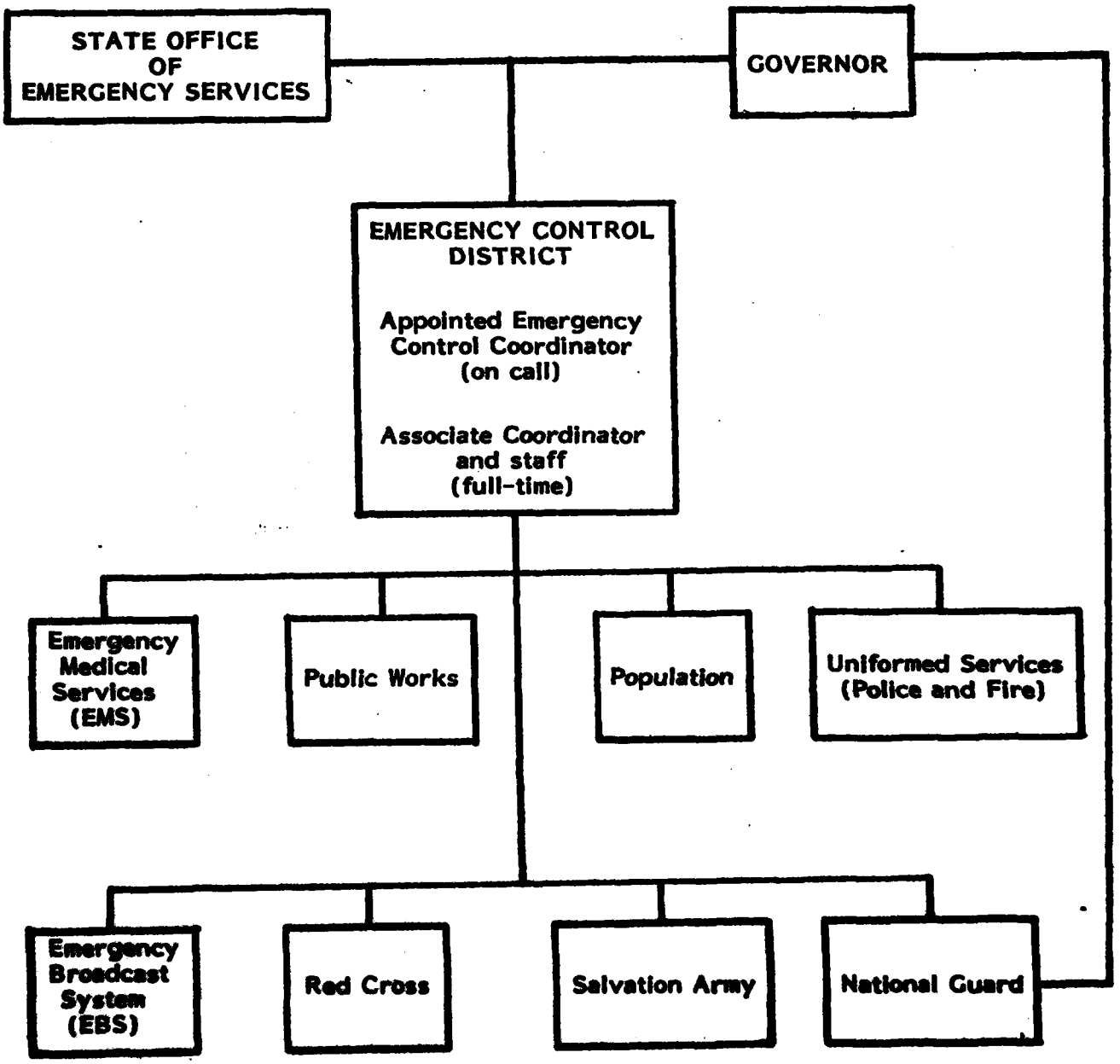
Resources Available to the Emergency Control Coordinator

In the event of an emergency affecting District 4, you will be responsible for coordinating and directing the activities of the manpower, vehicles and other equipment which become available to you in such a situation. Decisions you make will be carried out or transmitted to the appropriate agencies by the Associate Coordinator and the District 4 Emergency Control Staff.

Manpower and equipment resources for use in an emergency are already in place in the form of an Emergency Response Team which is fully under your control. You may call upon the various members of the Response Team for whatever actions you feel are necessary and appropriate to deal with the emergency situation. Detailed information about your Response Team, its resources and limitations, and the ways in which you may use it, is provided in the manual entitled "Disaster and Civil Emergency Response System for District 4." A familiarity with the resources available to you will be useful in the event you must activate the Response Team to handle an emergency situation.

STATE OFFICE OF EMERGENCY SERVICES

ORGANIZATIONAL DIAGRAM



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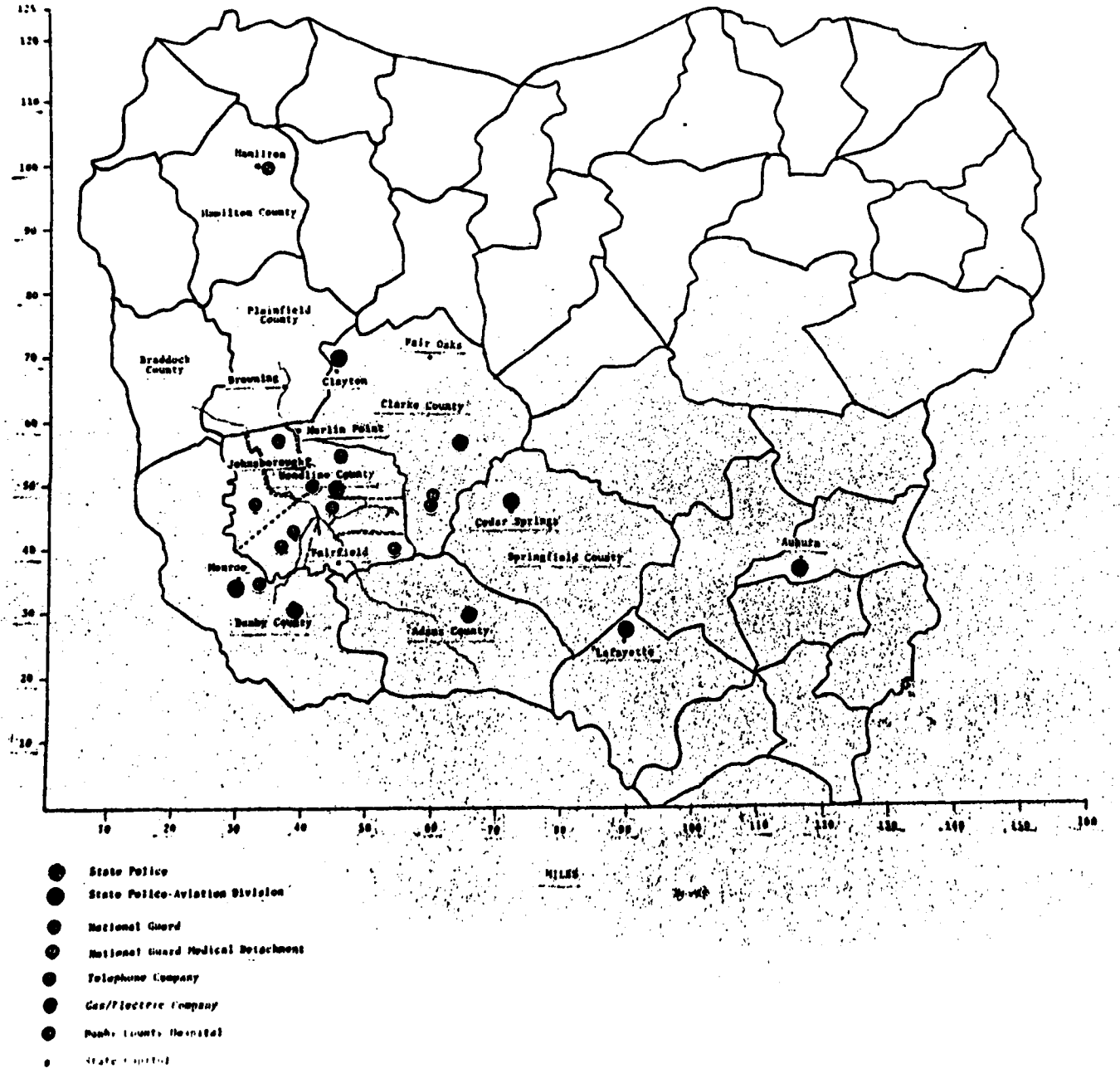
GENERAL INFORMATION

ABOUT

THE STATE


Hamilton
Hamilton County
Plainfield County
Braddock County
Browning
Clayton
Fair Oaks
Clarke County
Martin Point
Johnsborough
Woodlee County
Cedar Springs
Springfield County
Auburn
Fairfield
Monroe
Bunby County
Adams County
Lafayette
MILES
State Police
State Police-Aviation Division
National Guard
National Guard Medical Detachment
Telephone Company
Gas/Electric Company

OES-OM-835

STATE CAPITAL:

Hamilton, located in northwest of State

STATE POPULATION:

1,952,000 located throughout 37 counties

AVERAGE POPULATION DENSITY:

101 per square mile

GEOGRAPHY:

Average elevation: 1,503 ft. above sea level

Maximum elevation: 4,860 ft. above sea level

Total area: 19,275 square miles

Acres forested: 8,018,560

TOPOGRAPHY:

The topography ranges from hill to very mountainous regions. Large expanses of level land are virtually nonexistent. The terrain is gnarled, with many small communities in narrow valleys. Broad, level ridge tops and valley bottoms are cleared for agriculture and homes. Rural dwellings are distributed as ribbons of settlement along the highways or around transportation functions. Most urban development and industrial growth extends along rivers and streams. 65% of the State is forest land.

Hardwoods: Red and white oak, yellow poplar, red and sugar maple, hickory, beech, black cherry. Softwoods: Pine, shortleaf, white spruce, hemlock.

CLIMATE:

Humid, continental climate with distinct seasons of equal length. Precipitation averages over 40 inches annually. Snowfall ranges from an average of 20 inches annually in the lower regions to an average of 64 inches in the mountains. The coldest month of the year is January, averaging 33°F., while the warmest month of the year is July, with an average temperature of 78°F.

INDUSTRIES:

Mining (1,632 mines for bituminous coal); mineral and chemical production; primary metals; stone, clay, glass products; agriculture.

PRINCIPAL MANUFACTURED GOODS:

Machinery, hardwood products, fabricated metals, basic organic chemicals, aluminum, steel.

AGRICULTURAL PRODUCTS:

Apples, peaches, hay, corn, tobacco, milk, eggs, honey, wheat and other grains, soybeans.

LIVESTOCK:

Cattle, hogs, sheep, poultry.

MINERALS:

Bituminous coal, natural gas, crude petroleum, clay, cement, lime, salt.

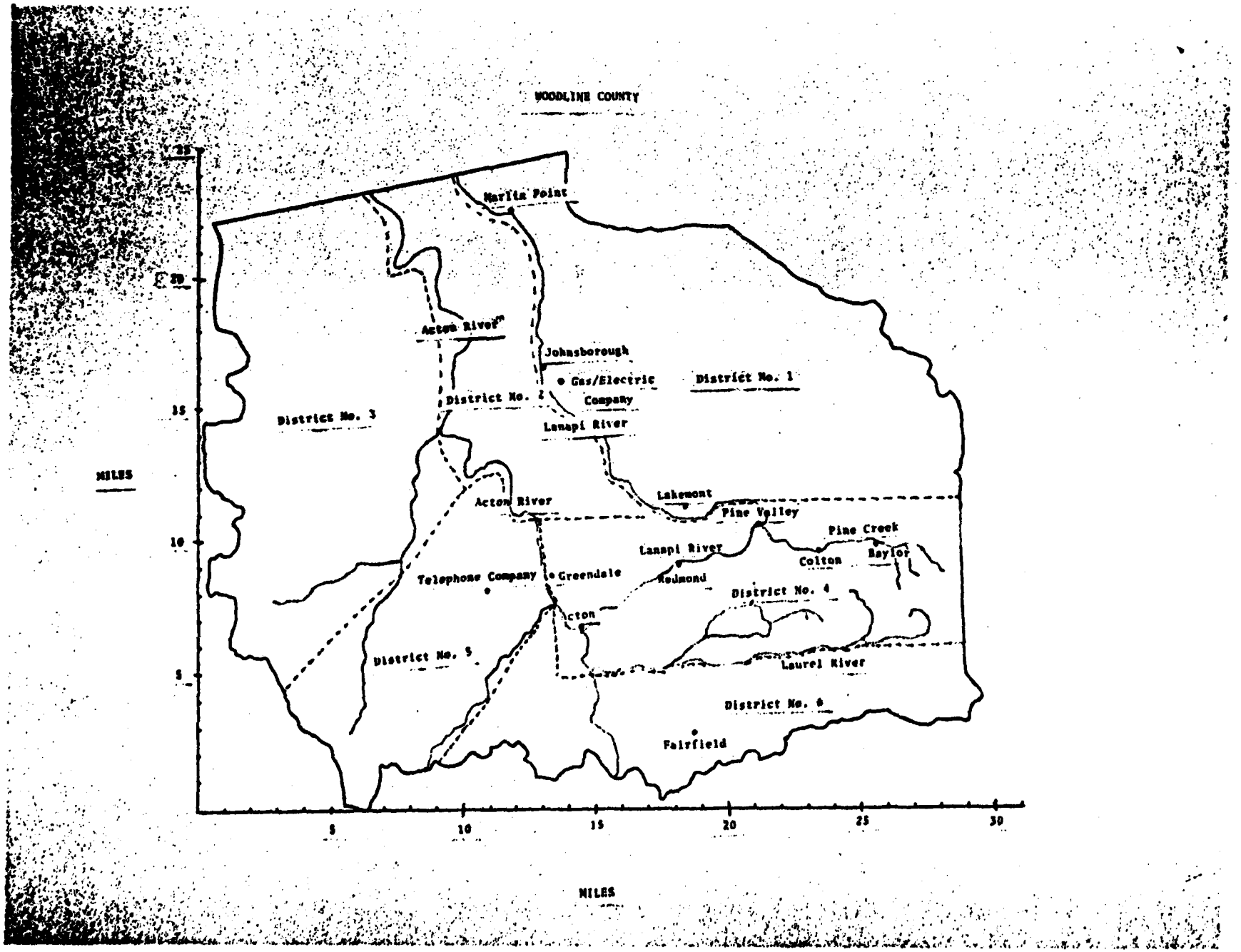
COMMUNICATIONS:

85 AM and/or FM radio stations, 9 commercial television stations, 2 public broadcasting stations, 31 daily newspapers, 9 weeklies.

INFORMATION ON

WOODLINE COUNTY

DISTRICT 4


WOODLINE COUNTY
Marita Point
Acton River
Johnsborough
Gas/Electric
Company
District No. 1
District No. 2
District No. 3
Lenapi River
Lakemont
Acton River
Pine Valley
Pine Creek
Lenapi River
Colton
Baylor
Telephone Company
Greendale
Redmond
District No. 4
Acton
District No. 5
Laurel River
District No. 6
Fairfield
MILES
5
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MILES

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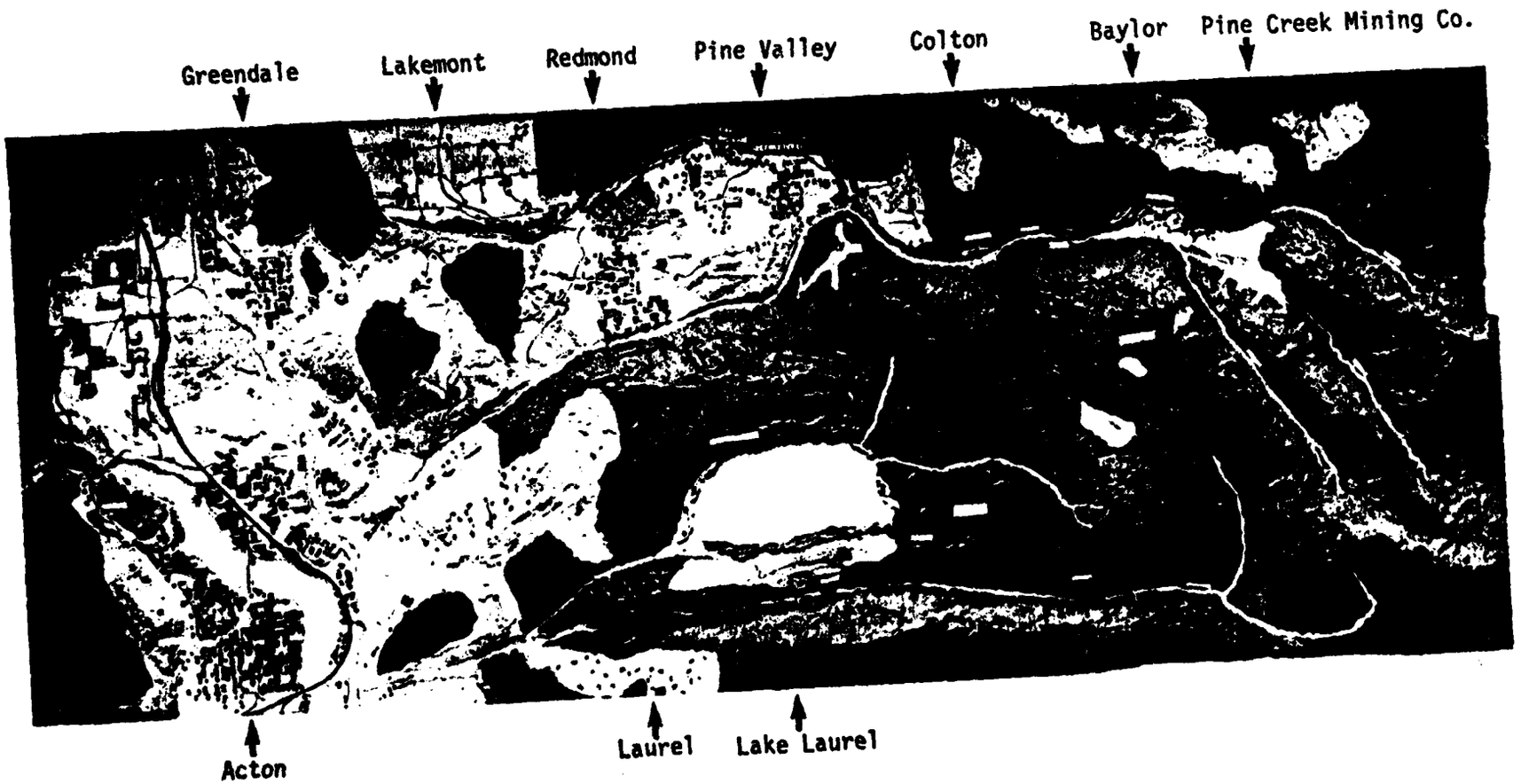
Greendale
Lakemont
Redmond
Pine Valley
Colton
Baylor
Pine Creek Mining Co.
Acton
Laurel
Lake Laurel

District 4 is one of six Emergency Control Districts established in Woodline County. Woodline County is located in the southwestern part of the State; District 4 comprises a central portion of the eastern end of the County. The western border of the District follows Route 509 to the north. The northern border runs, from west to east, one mile north of Downtown Greendale to the Lanapi River and follows that river to its northern-most point at Pine Valley. From that point on, the border runs in a straight line west to east, across the mountain peaks for an additional 8½ miles. It then continues south for seven miles to the Laurel River (following the County Line). The southern border follows the Laurel River, east to west, after turning a few hundred feet to the south. Near the river's mouth, the border follows the city line of Acton from east to west to Route 509. District 4 contains an area of 103 square miles.

The State's only National Forest, Green Mountain, is located in Woodline and Clarke Counties.

Woodline County is bordered by five other counties: Plainfield, Clarke, Adams, Danby, and Braddock.

RIVER SYSTEM:

Acton River:

The largest river flowing into the western section of the District from Braddock County. It flows north to south past Greendale and through Acton.

Lanapi River:

Originates in Plainfield County to the north of Woodline County. It flows through Browning, Marlin Point, and Johnsborough before reaching Pine Valley. The Lanapi runs north to south into District 4, making a bend around Pine Valley, past Redmond and through Acton, emptying into the Acton River.

Pine Creek:

Originating in the mountains of the eastern section of District 4, it flows east to west through the narrow valley and empties into the Lanapi River (see Figures 1 and 2).

North Fork Stream:

The site of three mine refuse dams owned by the Pine Creek Mining Company. It flows into the South Fork Stream, which in turn flows into Pine Creek, at Baylor.

Laurel River:

Flows east to west into the Acton River across the southern border of District 4.

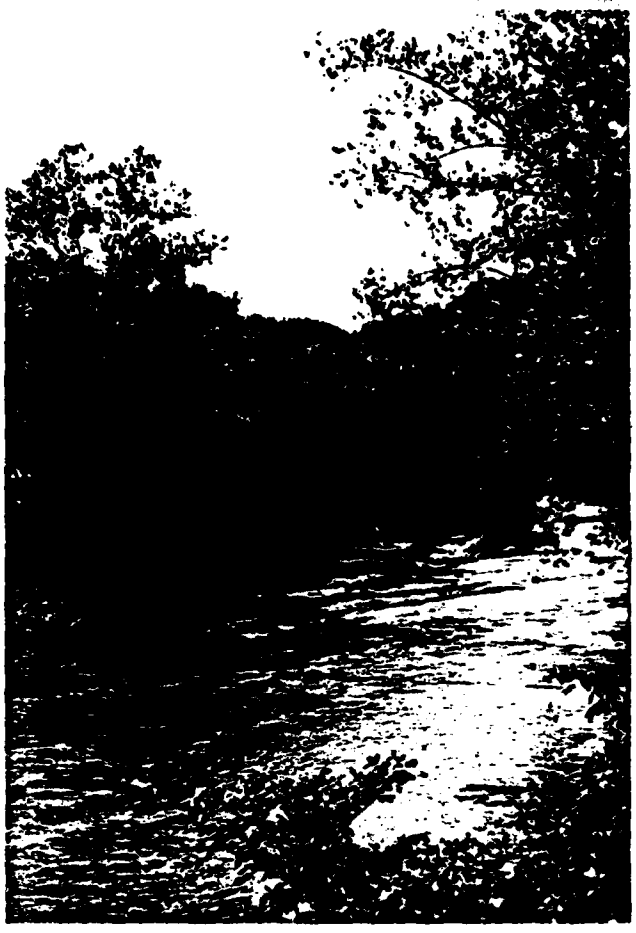

FIGURE 1

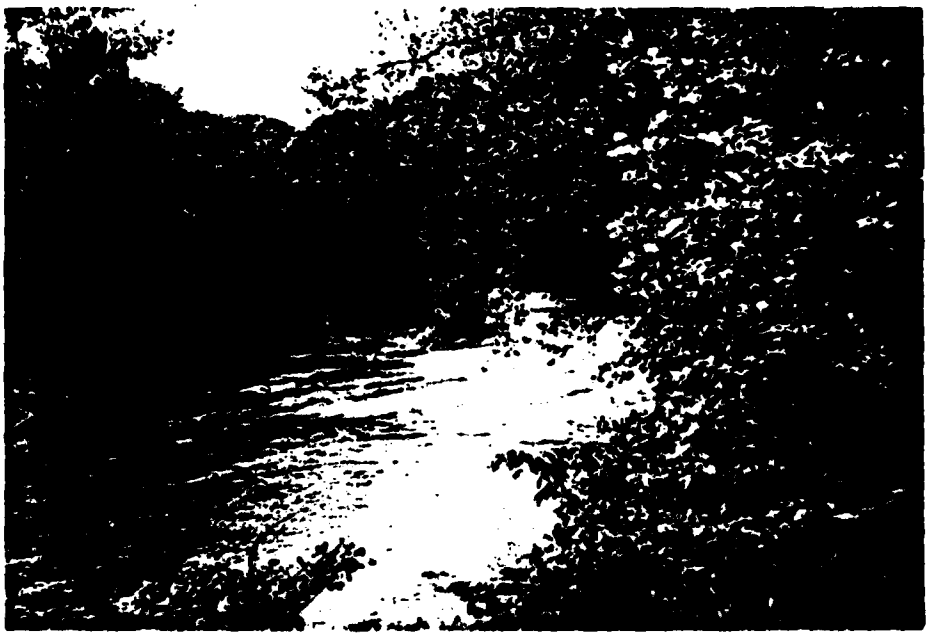

FIGURE 2

TOWNS AND CITIES:

Baylor:

A very small mining town located on Pine Creek, approximately 3/4 mile to the west northwest of the Pine Creek Mining Company dams. Eleven houses are scattered along the river (see Figure 3). The town contains a small grocery store and a luncheonette which also serves as a social gathering place.

Population: 48

Colton:

Located on Pine Creek, approximately 2 miles downstream from Baylor. A small mining town, similar to Baylor, but with a somewhat larger population. There are about 15 homes in the area along the river. The town has a small commercial building containing a drugstore, bar, grocery store, and a stationery/dry goods store. There is also a branch post office and a small car-repair garage (see Figure 4).

Population: 72

Pine Valley:

Located around the intersection of Pine Creek and the Lanapi River, Pine Valley is a ski resort community, with a larger population during the winter months (December through March) than in the off-season. The ski lodge, slopes, and lifts are located in the mountain area south of the Lanapi River. The business area of Pine Valley is situated on the north side of the Lanapi River. Here are to be found the fire department and ambulance units which serve the entire Pine Creek

FIGURE 3

FIGURE 4

area (Pine Valley, Colton and Baylor). The business district is somewhat tourist-oriented and contains several small hotels, bars, gift and souvenir shops, and restaurants. In addition, there are two drug stores, a clothing store, shoe store, bank, insurance company offices, and a large food store. Among the businesses in the downtown area are also a number of houses and apartments. The remainder of the town's permanent population resides in homes located in the hills encircled by the curve of the Lanapi River and on a hill north of the Pine Creek (also the location of the municipal police serving the Pine Creek area).

Population (December - March): Approximately 6,000 varying on a daily basis.

Population (April - November): 4,300

Redmond:

A moderately small, modern town located in a relatively flat area north of the lower section of the Lanapi River between Pine Valley and Acton (see Figures 5 and 6). The town is the location of the Public Works Department serving Redmond and the Pine Creek area. The business area contains a few five-story buildings, housing offices and apartments. In addition, there are several restaurants, two movie theatres, small retail establishments, a large supermarket and a department store. Homes, apartments and businesses are scattered throughout the town. Redmond has its own police and fire departments and Emergency Medical Services (EMS) ambulance units. There is also a Vocational Rehabilitation Center in town. The Redmond and Pine Creek Public Transportation Company, which operates local bus lines, is located

FIGURE 5

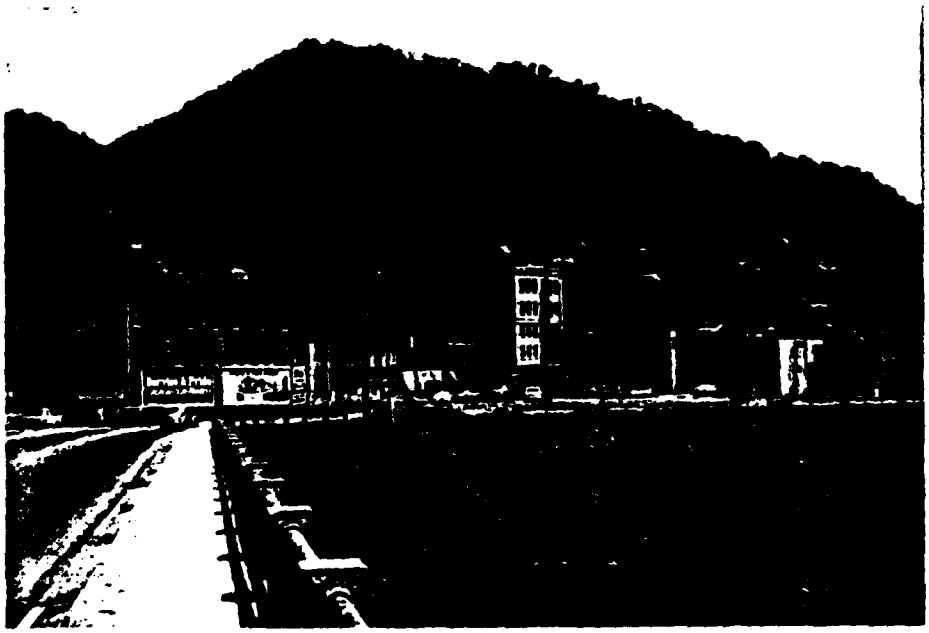

FIGURE 6

between the two towns on Alternate Route 309. The Pine Valley School District Transportation Company is located across the street.

Population: 7,600

Greendale:

A small city with a large industrial area located east of the Acton River and west of Route 8. This industrial area contains a number of warehouses, manufacturing facilities, and major office complexes, housing the production and administrative functions of such companies as the Greendale Paper Company, the Flowers Bread Company, and several clothing manufacturers. The downtown area, east of Route 10, contains several moderately-sized buildings, with offices, restaurants, and stores. Throughout this area are many apartment houses and older homes. Several newer residential sections are located to the northwest of downtown. The Greendale Police Department and the Department of Public Works are situated immediately west of downtown and Route 10. The Fire Department and EMS unit are located between Route 10 and Route 270 in the northwest corner of downtown.

Population: 9,100

Acton:

A moderately-sized city, Acton constitutes the primary shopping, cultural, and business center of Woodline and surrounding counties. It is also the County Seat for Woodline County. The business district includes several 15-20 story buildings and is located on both sides of the Acton River (see Figures 7 and 8). The business district

FIGURE 7

FIGURE 8

is surrounded by residential areas. Where these areas are more remote, they tend to include more land, parks, playgrounds, and shopping malls (see Figure 9). There are no heavy industry or large industrial plants in Acton. However, several small-scale manufacturing operations are located to the east of the Acton River. All facilities which one would expect in a city this size are present.

Population: 79,233

FIGURE 9

HIGHWAY SYSTEM:

Route 309:

A narrow, two-lane road located in the valley of the Pine Creek. Route 309 enters District 4 through a valley north of Pine Valley, crosses the Lanapi River and follows that river (along the river bed) to the northern part of Acton. It continues toward the west crossing both the Acton River and the West Fork, leaving the District at Route 509.

Route 270:

A two-lane road which borders the Lanapi River through the northern section of Redmond. It travels east/west through northern parts of Pine Valley, Redmond and Greendale, ending at Route 509.

Route 10:

A two-lane highway which travels north/south through the west side of the Greendale business district and through eastern Acton. Route 10 then crosses the Lanapi River and continues south along the eastern edge of Acton, leaving District 4 as it crosses the Laurel River.

Route 8:

A major four-lane highway passing north/south through Greendale and the eastern business district of Acton. It then crosses the Lanapi River just south of the eastern section of Acton and leaves the district at the Acton city line. Exits/entrances are available for Greendale and its industrial area and the western and eastern sections of Acton.

Route 509:

A two-lane highway traveling north/south bordering the Acton River on its east shore. It intersects Route 270 (east/west) in Greendale, crosses the Acton River at the fork and continues south out of the district. Route 509 represents the western border of District 4.

Route 438:

A small two-lane highway located in the southern part of the district. It begins at Route 10 in Acton, running west to east near the Laurel River, past the Laurel Veterans Administration Hospital, and crosses the Laurel River out of the District toward the eastern end of District 4.

Baylor-Pine Valley County Road:

A county road running generally east/west from the Pine Creek Mining Company facilities through Baylor and Colton to Route 309 at Pine Valley.

Alternate Route 309:

Connects Pine Valley and Redmond at higher elevations.

COMMERCE AND INDUSTRY:

The central part of the county, in particular the area which now is Acton, was settled by Scotch-Irish immigrants to the United States in the late 18th century. The settlers came as farmers, cutting the ample forest and establishing small plots of grazing land and some fields on which they raised grain, vegetables and similar products, primarily for their own use. The native Americans of the area were originally friendly and traded with the settlers. In time, however, the increasing use of land by additional settlers and several wars with the military changed that situation. In 1805, it became necessary to establish a defensive fort on the east side of the Acton River. Some time later, non-combative Indians and merchants settled near the fort, establishing the town of Acton.

With growing industrialization to the north, timber and coal became valuable resources. Acton's location on a navigable river (open to barges and side-wheelers) and ample resources of both hardwood and coal made it an important commercial center. A number of mines, operating both below and above ground (strip-mines) were established in the latter half of the 19th century and flourished through the nineteen-twenties. A major railroad line from the state capitol of Hamilton was built. The largest freight yard on this line was Acton. Branch lines connected Acton with several mines to the east and northeast. These branch lines allowed a number of sawmills, producing construction lumber, to spring up. The wide availability of hardwood, in turn, attracted the furniture industry. Most of the companies remained small, yet Acton became a well known source of quality furniture throughout the United States, Canada and several other countries.

The availability of coal attracted other industries, as well. Metals such as iron, aluminum and some other high grade ores were shipped by railroad to the Acton area for processing. A steel mill opened north of Acton (in the area now occupied by the Greendale Industrial Park), but closed a few years later because of lack of business during the Depression of the late 1920's and early 1930's. Some more specialized metal industry survived, also located in the industrial park area. A company producing high grade alloys for aircraft and the space program is doing well at the present time. In addition, specialized manufacturing of machinery continues as well.

In the 1830's, immigrants from Silesia established a weaving and clothing industry. That industry was never very successful but survived throughout the 19th and early 20th century. Most of the weaving companies failed during the Depression. However, two of the previously more successful companies were bought by a major manufacturer of work clothing, located out-of-state, and were combined into a single plant. The plant continues to operate and produces jeans, thermal underwear and camouflage materials.

With the harvesting of hardwoods and the burning of trees by farmers, most of the land became bare. To avoid erosion, rapidly growing trees (such as pines, firs, etc.) were planted in the early 20th century to reclaim land which had been deforested or destroyed by strip mining. The availability of these trees attracted a major paper company which purchased a number of tracts of land. Paper is still produced in the Greendale Industrial Park. The air and water pollution produced by the paper manufacturer has led to a number of law suits by the Federal Government (EPA), the State Government and the cities of Acton and Greendale against the Greendale Paper Company. The company contends that it cannot reduce pollution and remain profitable. In a recent interview with a local television station, the president of the

Greendale Paper Company threatened to shut down the plant. Such a move would leave the 1,324 employees without work.

Today, farming in the district and the entire county is rather limited. The hilly or mountainous terrain with many rocks and boulders hinders the modern farmer who must use large machinery to be profitable. Some of the smaller farms were sold to farmers who combined several tracts to create businesses that are marginally profitable. Many of the other farms disappeared under new forest or were bought by mining companies and by the paper company. Where the land can be made useful for farming, the soil is good (after removal of rocks and boulders) and precipitation is ample. The primary products are vegetables and grain. The Flowers Bread Company is the major market for locally grown grains. The company bakes bread for the population of the county and produces fancy cookies which are sold under another brand name (in license) across the country.

The increasing demand for anthracite coal in the earlier part of this century and for refined crude oil products in the period following the 1940's has made many of the mines in the district unprofitable. The underground mines were the first to close down (see Figure 10). At this point, only the Pine Creek Mining Company remains in operation. That company was purchased by a larger mining conglomerate, Consolidated Mining Industries.

Initial disposal of mine refuse occurred near the intersection of North Fork and South Fork Streams. The dumping of this material formed a waste bank extending to a width of approximately 400 feet and reaching a height of more than 200 feet above natural ground elevation. There was some concern that this mine would close as well because of its waste disposal practices. Following the enactment of water pollution control legislation, the Environmental Protection Agency filed a suite to force the company to end pollution of the

FIGURE 10

Pine Creek and the Lanapi River. As a result, the first wash water retention dam (Dam No. 1) was constructed 1,600 feet from the mouth of the valley using refuse materials from mining operations. Its holding capacity of 40 million gallons of water was built upon firm, natural ground. Four years of extensive sedimentation behind this dam and the need for additional refuse capacity dictated the need for the construction of a second dam (Dam No. 2, with a holding capacity of 45 million gallons of water) another 600 feet up the valley. Increased activity within the mine necessitated the construction of yet an additional dam (Dam No. 3, with a capacity of 91 million gallons of water) located 600 feet up the valley from Dam No. 2. In the construction of Dams No. 2 and 3, no effort was made to remove vegetation or poor quality soils from the base or abutments of these dams.

In the early 1900's, the then President of the Pine Creek Mining Company decided to diversify his holdings and developed a ski resort on a mountain across from the small village of Pine Valley. With considerable snowfall throughout the late fall, winter and early spring months, the resort became a success. Initially, relatively wealthy people came to Pine Valley and were served in elegant style in the hotel on top of the mountain. The hotel itself is a fine example of Victorian architecture, with many expensive suites and facilities. As the reputation of the Pine Valley resort spread, other hotels opened in the town, followed by shops and vacation homes. Today, both Holiday Inn and Sheraton have hotels in the town of Pine Valley. The quality of the once famous Mountain Ski Resort Hotel is said to have suffered during the last few years. Some believe that the sale of the hotel to a major chain in 1971 may be the reason for the decline. In the last decade, the hotel has hosted many corporate and scientific conferences.

Redmond, once the center of the local furniture industry and a town that was known for its many shoemakers has lost both of its original sources of employment. Only one orthopedic shoe manufacturer is still in business. With the advent of inexpensive factory-produced furniture sold at discount, many of the small, high-quality operations in and near Redmond could no longer survive. Some disappeared during the Depression, others failed in the period between 1950 and 1970. Today, Redmond is primarily a bedroom community for Acton, although some smaller companies with few employees and diversified products remain. A large lumber corporation maintains a laboratory with 73 employees in the town. A small manufacturer of organic chemicals has recently established a plant in an empty building (previously occupied by a furniture manufacturer) on the west side of town. Many other commercial buildings in Redmond still stand unoccupied.

In general, the region experienced its most prosperous period between 1850 and the late 1920's. Since then, there has been little influx of new industry while several existing commercial and industrial activities have failed. Many younger people are leaving the area after finishing high school. Jobs are scarce, and the unemployment rate tends to be considerably above the national average.

RAILROADS:

The main railroad line of the Hamilton and Southwest Railroad Company runs from Hamilton through Greendale and the eastern section of Acton (with a terminal on Route 10), across the Lanapi and Laurel Rivers to the south. It carries ten freight and two passenger trains a day in each direction.

Branch lines from Acton through Redmond and Pine Valley provide freight service to the Pine Creek Mining Company facilities. These lines follow the river at several places and carry about four coal trains per day (see Figure 11). A rarely used track runs from Redmond across the Lanapi River and turns north through Lakemont. Several branch connections exist within the Greendale industrial section.

FIGURE 11

POLICE, FIRE AND AMBULANCE SERVICE:

The listings in this section refer to the locations of the various police, fire, and ambulance units. For information about the use of these units by the Emergency Control Coordinator of District 4 during an emergency situation, please see the manual entitled "Disaster and Civil Emergency Response System for District 4."

Municipal Police Departments:

Acton:

Located in the business district of Acton, on the east shore of the Acton River. (Quadrant: BT33)

Greendale:

Located in the business district of Greendale, west of Route 10. (Quadrant: BR72)

Redmond:

Located in the northeast section of the business district of Redmond. (Quadrant: EF70)

Pine Creek Area:

Located east of the Lanapi River, on the County Road connecting Pine Valley with Colton and Baylor. (Quadrant: GF81)

State Police Barracks:

Woodline County:

Located outside of District 4, on Route 10 north of the District border.

Clarke County:

Located in the east-central section of that county.

Adams County:

Located in the central part of that county.

Danby County:

Located in the southern part of that county.

State Police Aviation Division:

The following divisions can be dispatched for Woodline County:

Aviation Division of Clayton:

Located in northwest Clarke County.

Aviation Division of Cedar Springs:

Located in western Springfield County.

Aviation Division of Monroe:

Located in central Danby County.

Aviation Division of Lafayette:

Located in the southern part of the State.

Aviation Division of Auburn:

Located in the southeast part of the State.

Fire Departments:

Acton:

Located in the business district on the west shore of the Acton River (Quadrant: BW16) and at the intersection of Routes 10 and 309 (Quadrant: BY42)

Greendale:

Located in the northwest corner of downtown Greendale, east of Route 10. (Quadrant: BR77)

Redmond:

Located in the northwest part of town. (Quadrant: DV72)

Pine Creek Area:

Located on Route 309, near the Lanapi River Bend. (Quadrant: FN86)

Emergency Medical Services (EMS) Ambulance Units:

Acton Greendale Redmond Pine Creek Area	Associated with the respective municipal Fire Departments; for locations, refer to appropriate Fire Department above.

For additional assistance, the following units may be dispatched:

Lakemont:

Located north of the northern portion of the Lanapi River.

Fairfield:

Located 5 miles south of District 4's southern border.

EDUCATIONAL SYSTEM:

The Pine Valley School District:

Provides educational facilities and services for the children of Redmond, Pine Valley and the Pine Creek Area (Baylor and Colton). The schools included in this district (with quadrant locations) are:

Central Woodline Regional High (EZ85)

Grades 10-12; hours 8:30 a.m. - 2:30 p.m.

Number of students: 734, with an average absenteeism of 4.5%

Number of students using bus transportation: 624

Number of teachers: 41, with a student-teacher ratio of 18:1

Number of additional staff: 25

Pine Valley Middle (ES88)

Grades 6-9; hours 8:20 a.m. - 2:40 p.m.

Number of students: 755, with an average absenteeism of 3%

Number of students using bus transportation: 725

Number of teachers: 42, with a student-teacher ratio of 16:1

Number of additional staff: 24

Pine Valley Elementary (EY94)

Grades K-5; hours 9:00 a.m. - 2:30 p.m.

Number of students: 382, with an average absenteeism of 4.8%

Number of students using bus transportation: 375

Number of teachers: 21, with a student-teacher ratio of 19:1

Number of additional staff: 15

Redmond Elementary (EF75):

Grades K-5; hours 9:00 a.m. - 2:30 p.m.

Number of students: 799, with an average absenteeism of 4.6%

Number of students using bus transportation: 761

Number of teachers: 40, with a student-teacher ratio of 19:1

Number of additional staff: 28

The Greendale School District:

Provides educational facilities and services for the children of Greendale.

The schools included in this district are:

Greendale High (DC59)

Grades 8-12; hours 8:30 a.m. - 2:45 p.m.

Number of students: 479, with an average absenteeism of 6.3%

Number of students using bus transportation: 415

Number of teachers: 23, with a student-teacher ratio of 21:1

Number of additional staff: 15

Greendale Middle (BL78)

Grades 5-7; hours 8:40 a.m. - 2:40 p.m.

Number of students: 365, with an average absenteeism of 5.7%

Number of students using bus transporation: 332

Number of teachers: 20, with a student-teacher ratio of 18:1

Number of additional staff: 12

Greendale Elementary (CI70)

Grades K-4; hours 9:00 a.m. - 2:45 p.m.

Number of students: 606, with an average absenteeism of 5.9%

Number of students using bus transportation: 606

Number of teachers: 31, with a student-teacher ratio of 20:1

Number of additional staff: 18

The Acton School District:

Provides educational facilities and services to the children of Acton.

The schools included in this district are:

Acton High School (CN33)

Grades 10-12; hours 8:30 a.m. - 2:50 p.m.

Number of students: 1,398, with an average absenteeism of 8.1%

Number of students using bus transportation: 710

Number of teachers: 56, with a student-teacher ratio of 25:1

Number of additional staff: 35

North Acton Middle (CL44)

Grades 6-9; hours 8:40 a.m. - 2:45 p.m.

Number of students: 840, with an average absenteeism of 5.1%

Number of students using bus transportation: 829

Number of teachers: 38, with a student-teacher ratio of 22:1

Number of additional staff: 21

South Acton Middle (AN34)

Grades 6-9; hours 8:40 a.m. - 2:45 p.m.

Number of students: 1,024, with an average absenteeism of 6.3%

Number of students using bus transportation: 1,021

Number of teachers: 47, with a student-teacher ratio of 22:1

Number of additional staff: 23

North Acton Elementary (BN39)

Grades K-5; hours 9:00 a.m. - 3:00 p.m.

Number of students: 1,081, with an average absenteeism of 5.5%

Number of students using bus transportation: 1,032

Number of teachers: 57, with a student-teacher ratio of 19:1

Number of additional staff: 27

South Acton Elementary (CR17)

Grades K-5; hours 9:00 a.m. - 3:00 p.m.

Number of students: 1,716, with an average absenteeism of 7.9%

Number of students using bus transportation: 1,716

Number of teachers: 78, with a student-teacher ratio of 22:1

Number of additional staff: 39

Preschools or Day Care Centers:

Acton Day Care Center (CI36):

Located in Acton; hours 6:30 a.m. - 5:30 p.m.

Number of children (September - June): 85-90, ages 2½ - 6 years

(June/July/August): 115-120, ages 2½ - 9 years

Staff: 13

Provides cold breakfast, hot lunch, snacks, organized activities

Facility vehicles: 2 buses which carry 30 children each

Acton YMCA Day School ((BE24)

Located in Acton; hours 7:00 a.m. - 5:00 p.m.

Number of children (September - June): 60-65, ages 2½ - 5 years

(June/July/August): 75-80, ages 2½ - 8 years

Staff: 10

Provides special summer programs, 2 meals and snacks

Facility vehicles: 1 van carrying 15 children

1 station wagon carrying 8 children

ABC Day Care Center (BV64)

Located in Greendale; hours 6:30 a.m. - 12 midnight

Number of children (September - June): 50-55, ages 6 months - 2 years

(June/July/August): 70-75, ages 2 - 8 years

Staff: 8

Provides a night program, snacks and hot lunch, activities

Facility vehicles: 1 van carrying 20 children

Pine Valley Little School (F189)

Located in Pine Valley; hours 7:00 a.m. - 5:00 p.m.

Number of children (September - June): 12-15, ages 2 - 6 years

(June/July/August): 15-20, ages 2 - 8 years

Staff: 6

Provides cold breakfast, hot lunch, 2 snacks, organized activities

Facility vehicles: 1 car carrying 6 children

SPECIAL FACILITIES:

Hospitals:

Acton General Hospital (BE11)

A non-helipad hospital located on the west side of the Acton River. The facility consists of an older section and a newer section, built in the last five years. In addition, there is a nursing school associated with the hospital, with a dorm for the student nurses located across the street. Size: 320 beds.

Greendale Hospital (BD89)

A modern, well-staffed and well-equipped facility located in Greendale on Route 270, between Routes 8 and 10. It is helipad equipped. Size: 270 beds.

John Wallace Memorial Hospital (DC53)

A modern, well-equipped helipad facility located on a hill above the Lanapi River between Redmond and Acton. Size: 220 beds.

Laurel VA Hospital (FL15)

A facility located on the north shore of the Laurel River, south of the State Park. The hospital does not have a helipad. Size: 210 beds.

Additional hospital outside of District 4:

Danby County Hospital

A 250-bed facility located in Danby County, approximately 10 miles east of Monroe.

Nursing Homes:

Acton Nursing Home (BY38)

A 240-bed nursing center located in the business district of the east shore, south of Route 309. The facility is equipped to handle both short-term and long-term care of in-patients.

Number of employees: 162

Facility vehicles: 3 vans, carrying 15 persons each
1 station wagon
1 small truck

Greendale Nursing Home (BM88)

An 80-bed nursing facility located in northern Greendale, east of Route 10. The patients are all residents of the facility, ages 47-100, requiring low-level and intermediate care.

Number of employees: 37

Facility vehicles: 2 vans
2 passenger cars

Other Special Facilities:

Redmond Vocational Rehabilitation Center (EA67)

A facility handling both in-patients (non-mobile) and out-patients (mobile). Located in the western part of Redmond. The capacity for in-patient care is approximately 65, with an average of 112 daily out-patients.

Number of employees: 72

Facility vehicles: 1 van, carrying 20 persons
1 station wagon

Acton Mental Retardation Center (CZ41)

Strictly an out-patient facility, located in the Lanapi River Valley approximately 1/8 mile from the River. Daily care, training and treatment are provided to approximately 155 students between the ages of 5 and 30.

Number of employees: 38

Facility vehicles: 2 small buses (carrying 24 persons each) which make daily runs with specified stops for students

1 car

PREVIOUS DISASTER EVENTS:

A variety of disasters have occurred in District 4 in this century. Some of them were associated with considerable loss of life. Since the establishment of the State Office of Emergency Services and the Emergency Control District, loss of life and property in natural and man-made disasters have been held to a minimum. The following major disasters have occurred since 1900:

Tornado, 1912:

While tornados are relatively rare in this part of the United States, they can hit with great force. A large tornado during the summer of 1912 destroyed several homes in Greendale and leveled several blocks in Acton. A side-wheeler sank in the river. The local newspaper reported that 43 persons died; more than 300 were injured. A large number of families were left homeless. Two missing persons were never found. The devastation left by the tornado was visible into the mid-twenties.

Railroad Accident, 1923:

During a snowstorm in January 1923, a scheduled passenger express train left its tracks on the railroad bridge across the Laurel River. Three cars of the train plunged into the river, while two others fell onto the river bank. Nearly all of the train's passengers and it's fireman were killed. Reports list 123 dead, 11 injured. The bridge was reconstructed and ready for use in October of the same year.

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Slope Failure, 1925:

The area around Acton experiences considerable precipitation. Periodically, it rains for days at a time, resulting in decreased stability of mountain slopes because of soil saturation. Steep areas of the mountains collapse from time to time. Most problems of this kind have occurred in unpopulated areas. However, in 1925 a mountain slope in quadrant HG75 caved in, covering both the railroad and the road between Pine Valley and the Pine Creek Mine. The cave-in occurred at night. There were no injuries. Road and railroad were re-opened 42 days later.

Airplane Crash, 1936:

A Ford Trimotor passenger plane ran off the end of the runway of Woodline County Airport. The plane burst into flames. All 22 passengers and crew were killed.

Slope Failure, 1936:

After heavy rains in the fall of 1936, several saturated mountain slopes collapsed. While most landslides occurred in Green Mountain National Forest and other nonpopulated areas, a disaster occurred in quadrants GY70 through HB70 along the Pine Creek. The small settlement of Mercer, consisting of 10 houses, a country store and a church, was completely covered by a landslide. The collapse of the saturated slope occurred at night. All residents of the town (54 persons) were killed. The Pine Creek was temporarily dammed behind the landslide, threatening to inundate houses up-river. A trench across the mass of rock and earth was completed in 9 days, alleviating the threat to up-river settlements. Reconstruction of road and railroad in that

section took more than three months. The town was not rebuilt.

Acton Fire, 1944:

A ruptured gas main near the Acton city hall resulted in an explosion which ripped through four blocks and sent 82 persons to the hospital with burns and wounds when several houses in the area collapsed. Four persons were killed or died from injuries soon after the accident.

Railroad Accident, 1956:

The collision of a switch engine with a freight train in the Acton railroad yards resulted in a fire which spread to several tank cars loaded with toxic chemicals. The resulting cloud of smoke and poisonous gases spread over a wide section of Acton, particularly on the west side of the city. Approximately 18,000 persons had to be temporarily evacuated. Factories, stores and other facilities had to close for three days. Five firemen were treated for inhalation of poisonous fumes; one of them died four days later.

Pine Valley Fire, 1958:

A fire and subsequent explosion in a drycleaning establishment at Pine Valley spread to surrounding buildings and threatened to engulf neighboring blocks. High winds spread the flames to a number of adjacent areas, but the joint efforts of all area fire departments extinguished most of the secondary fires. An area of two square blocks, however, was completely destroyed.

Fair Oaks Dam Collapse, 1971:

A strip mining company at Fair Oaks in Clarke County had built a dam from mine refuse material similar to the dams used by the Pine Creek Mining Company to deposit soil, silt and other refuse generated by mining operations. To avoid polluting their river, water was stored behind that dam. Both dam and lake size were considerably greater than the present facilities of the Pine Creek Mining Company. For example, the Fair Oaks lake held approximately 250 million gallons of water. Following soil saturation due to continuous heavy rains in the spring of 1971, the Fair Oaks dam collapsed, flooding towns located downstream. The records show that 674 persons died, 23 were missing and never found. Thousands were injured and made homeless. With the aid of Federal agencies, a number of Fair Oaks residents were resettled in the Acton and Pine Creek areas. While District 4 was not directly affected by that disaster, a large number of the injured were cared for and housed in facilities in this district.

Drinking Water Pollution, 1981:

After a number of persons from the northern section of eastern Acton were taken to hospitals with poisoning symptoms, Acton authorities determined that the water in that part of the city was polluted by the seepage of chemicals from a factory in the Greendale Industrial Park area. The factory was closed by court order. New water wells had to be dug by the city. For some time, the population of the affected area of Acton had to receive their drinking water by truck.

DISASTER AND CIVIL EMERGENCY RESPONSE SYSTEM FOR DISTRICT 4, WOODLINE COUNTY

Prepared by:

The State Office of Emergency Services

in conjunction with

Emergency Control District 4

Coordination Staff

June, 1994

INTRODUCTION

This manual was compiled for the use of the Emergency Control Coordinator of District 4, Woodline County. It contains all pertinent and required information regarding available resources (manpower and equipment), means of communication, and methods of utilization and implementation to be used in the event of an emergency or disaster affecting District 4. Additional information regarding specific areas of concern is contained in this manual as well.

The information is current and up-to-date. By regulation of the State OES, all relevant changes in conditions or facts must be reflected by changes in the manual within thirty (30) days of their occurrence.

The OES recommends that each Emergency Control Coordinator, upon his/her appointment to that position, thoroughly familiarize him/herself with the contents of this manual. Doing so will facilitate the Coordinator's ability to carry out his/her responsibilities when called to active duty during an emergency.

TABLE OF CONTENTS

POTENTIAL EMERGENCIES AND DISASTERS

The following is a list of potential events to which District 4 is susceptible for reasons of location, climate, or the nature of local facilities.

Severe Weather Conditions:

Weather information will be sent to you by the National Weather Service as soon as changes affecting your area occur.

1. Tornado:

   A violent, rotating column of air from a thundercloud, usually recognized as a funnel-shaped vortex accompanied by loud, roaring winds of up to 300 m.p.h. A tornado is a most destructive storm. Although an isolated tornado may touch down, the correct conditions may spawn several in an area at one time. A tornado's path may be from a few feet up to 300 miles in length, with an average of five miles. The average forward speed is 25-40 m.p.h.; the average diameter is 220 yards. Tornadoes may occur at any time during the year, but the necessary meteorological conditions are more likely in the Spring.

2. Hurricane:

   A severe cyclone originating over tropical waters with wind velocity of 75 m.p.h. or greater. The winds take the form of an oval or a circle as much as 500 miles in diameter. Hurricanes may occur at any time, but are most likely in August and September.

3. Blizzard:

   Blizzards are characterized by low temperatures and strong winds accompanied by a great amount of snowfall (mostly fine and dry). Less than 1/4 mile visibility, 35 m.p.h. winds, and temperatures of 20°F. or lower are typical. Blizzards occur during the winter months, but occasionally also in the late Fall and early Spring.

4. Flood:

   Natural condition occurring when water overflows the natural or artificial confines of a stream or other body of water. (See Appendix A for average and overflow water levels in District 4). Flooding may occur at any time during the year, depending upon other meteorological conditions.

5. Severe Thunderstorm:

   Can occur at any time of the year, although they are most likely during the summer months.

Other Accidents and Disasters:

6. Electrical substation blackout
7. Fires or explosions in industrial or public facilities
8. Highway accidents
9. Mine accidents
10. Dam collapse
11. Aviation accidents

12. Ski lodge accidents

13. Slope failures and mudslides

14. Railroad accidents

15. Chemical and toxic spills or leakage

RESPONSIBILITIES AND/OR LIMITATIONS OF THE EMERGENCY RESPONSE TEAM

District 4 has established an Emergency Response Team consisting of representatives of a variety of community-based organizations. This team is to be activated in the case of an emergency or disaster. Its operations, manpower and equipment are to be used at the discretion and under the direction of the District 4 Emergency Control Coordinator. The following is a list of the members of the Emergency Response Team, with an outline of the functions and capabilities of each of these, under both normal and emergency or disaster conditions.

Municipal Police Departments:

These are the first organizations available to you in a disaster situation. They can easily react to an emergency because of their predisaster function of preserving life and property. In addition, departmental operations are not based on rigid authority, so that the individual partrolman can act at his own discretion. In an emergency situation, the police departments have standing orders to call in all off-duty personnel, either by recalling the previous shift or by calling in the next shift early. Mobilization of personnel will be affected by the time the disaster occurs. Therefore, effective communication channels for notifying personnel (such as radio and television broadcasts) must exist.

The basic functions of the police department involve: (1) Operations - patrol, traffic, detective, vice, and juvenile; (2) Services - records, laboratory, jail, and maintenance; and (3) Administration - planning, inspection, budget, personnel, and public relations. However, in a disaster situation, there is a reallocation of personnel from the areas of low activity to high activity areas. This reorganization may be detrimental to the efficient overall operation of the department.

The disaster tasks for which the municipal departments are responsible are:

1. Traffic and crowd control: It is of primary importance to keep people out of restricted areas of damage, to develop a pass system to allow the proper authorities to enter these areas, and to guide the population to safe locations.
2. Protection of life and property: This includes continuous monitoring of road and other area conditions to assist in making decisions regarding the safety of the affected areas (for example, immediate

awareness of a fuel line break by the police would lead to appropriate protective actions). Also, looting must be controlled in an area suffering from a disaster.

3. Search and rescue: This function is often initially carried out in a rather disorganized and unsystematic manner by individual patrolmen. It then will become systematic and operated by the police department until another, nonpolice organization can take over these operations.
4. Warning and evacuation: These functions can be carried out effectively because of the departments' superior capabilities for communication.

State Police:

The State Police are available to assist in an emergency too large or extensive for the municipal police to handle. The basic operating unit of this Department is known as the "station." There is at least one State Police station in all but three counties of the state's 37 counties. There are two counties in the northwestern part of the state which have more than one station due to geographic and demographic criteria. A group of several stations form what is known as a Troop. Troops are organized into areas on a geographic basis. The State Police stations in Woodline, Adams, Danby, and Clarke counties represent a Troop and are controlled from Troop Headquarters. There are nine Troops throughout the State.

The duties and services performed by members of the State Police in disaster situations are many and varied. These duties may be arranged into four primary categories which include traffic control, patrol for the prevention of crime, monitoring conditions on major highways, and aid and rescue of persons in distress.

State Police-Aviation Division:

This division provides helicopters and personnel for two purposes: routine police work and Med/Evac transports. On the average, ninety-one percent of the helicopter patrol time is used to carry out routine police work, such work includes: (1) search and rescue operations, (2) criminal investigations, (3) general area searches and monitoring, (4) aerial photography, and (5) traffic control and security transports.

Nine percent of the helicopter patrol time is used for Med/Evac missions, however, Med/Evac missions have first priority in the use of the helicopters. The Med/Evac system is used for six purposes: (1) direct pickup of patients with life-threatening injuries from the scene of an accident (these constitute 70% of the missions), (2) interhospital transfers for critical trauma victims, (3) transfer of any patient needing more elaborate facilities for care, (4) transport of premature infants to intensive care neonatal facilities, (5) transport of medical personnel to the scene of a disaster or another emergency care facility, and (6) transport of medical supplies such as blood and organs. This division coordinates its activities with the local Emergency Medical Services (EMS) ambulance units to assure adequate and effective operation (see Emergency Medical Services Section, below).

The Med/Evac crew consists of a pilot plus a medic/technician. The medic/technician will maintain the oxygen airway of the victim, control external bleeding, and practice resuscitation procedures. The pilot is responsible for transport of the victim to a hospital. The helicopter is equipped with cardiac monitors, defibrillators, battery-powered suction apparatus, heart-lung resuscitators and respirators. It also can maintain constant communication with the hospital physicians alerted to the victim's condition.

Nine helicopters are maintained for service in designated locations throughout the state. There are seventy-seven hospital heliports or helipads throughout the state. An additional twenty emergency landing areas, such as high school football fields, have been designated.

Fire Department:

The make-up of the fire departments in the District vary as to the proportion of full-time and volunteer personnel. However, all departments share the same organization and functions. Each department is broken down into three divisions: (1) The Fire Suppression Division, (2) Emergency Medical Services Division, (3) Training Division for firefighting and prehospital care.

The basic response unit consists of two engine companies, a hook and ladder company, and six to eight men plus two officers. Larger departments, such as those in Acton, consist of multiples of this unit. The fire department is expected to respond to all fires and to successfully suppress them. However, the fire department may respond to other community emergencies such as drownings, electrocutions, asphyxiations, and home, industrial or traffic accidents.

Fire officials prefer to stay out of long-term, non-fire-related disasters in order to keep their units intact for their normal functioning. When alerted, the department will activate reserve apparatus, call in off-duty personnel, lengthen on-duty hours, and prepare for the logistical problems of relief, feeding, additional supplies and overloaded communications. When called upon by your staff, they may, however, assist in search and rescue operations, provide needed equipment such as trucks or boats, or help in the restoration of vital communications. Fire-fighting personnel are quick to withdraw from active participation once the disaster situation subsides or when they are needed for their primary purpose of fighting fires.

Emergency Medical Services (EMS) Ambulance Units:

All of the EMS units in your district are part of the municipal fire departments, designated the Emergency Medical Services Division. They vary in the number of personnel and amount of emergency-care equipment available. The EMS unit is responsible for difficult rescues and resuscitations, fire victims, casualty situations, disasters, and the transport of patients to other care facilities, in addition to standard ambulance service. The EMS unit may also be called upon by the Med/Evac operation to treat and transport victims of non-life-threatening accidents, and in turn, the EMS unit can ask for the assistance of a Med/Evac unit. The EMS vehicles are equipped to maintain constant communication with other medical vehicles or hospitals.

The units are staffed with Basic Emergency Medical Technicians, who have undergone a 120-hour training course in emergency care procedures, and Paramedic Emergency Medical Technicians, who have undergone a 550-hour training course. The training division of the fire department is staffed by members of both the Fire Suppression Group and the Emergency Medical Services Group to allow movement of these personnel from the training division to the other two divisions when auxiliary personnel are needed.

Department of Public Works (DPW):

This department is an entity of each city or municipal government in your district and is responsible for seeing that the daily functions of the community are carried out effectively. Each department has an abundance of human and physical resources from highly-trained engineers to semi-skilled laborers and from garbage trucks and snow plows to cranes and shovels for heavy construction. The department's day-to-day duties include: Design, construction, maintenance of streets and sidewalks; installation and maintenance of street signs and traffic signals; surveying and mapping; maintenance of public buildings and parking facilities; refuse collection and disposal; administration of construction contracts; and, the operations of the sewage treatment plant and water treatment plant.

The Department of Public Works expects to become involved in community emergencies; therefore, it has set up standard operating procedures to deal with such emergencies. In an emergency, the potential demands that would be placed on this department would include: (1) the responsibility to keep the streets open and in the proper state of repair for emergency vehicles, (2) the distribution of clean water to the community and the maintenance of proper water pressure for fighting fires, (3) the maintenance of an effective and efficient sewer system.

The department may have to restructure its organizations and develop new tasks in a severe, unanticipated disaster. It can do this quite easily, however, because of the excess number of trained personnel DPW employs, the great flexibility of DPW personnel in performing various duties, the rapid mobilization of personnel, and the vast experience of working independently as a group, without the need to become highly involved with the activities of other emergency organizations.

The Red Cross:

This is a national organization consisting of State chapters, with a professional staff, and local chapters with a staff combining professionals and area volunteers. The State chapter is located in Hamilton and the local chapter of District 4 is located in Acton. This organization is critical to the immediate and long-term relief of a community suffering from a disaster.

The local Red Cross Chapter is broken down into five divisions: Service to Military Families, First Aid and Water Safety Services, Nursing Services, Educational Services, and Volunteer Services. Each of these divisions is headed by a director and a secretary responsible to the State Chapter manager. In addition to these service divisions, there is a Disaster Services Division comprised of staff and volunteers from the other divisions with separate duties assigned to them in a disaster situation. The volunteers of a local chapter must undergo a special 30-hour training course in one of the above five divisions. "Walk-ins," individuals who volunteer at the local office at the time of a disaster, are given a crash course in disaster reaction procedures before being sent out in the field under the supervision of trained personnel. If more personnel are needed, the Red Cross has national mutual assistance agreements with other associations such as fire department auxiliaries, VFW's, women's organizations, etc.

The disaster tasks of the Red Cross include long-term rehabilitation and immediate emergency mass care. The rehabilitation of disaster victims is an extended service usually provided by the national chapter; it consists of monetary gifts for basic needs and family services such as obtaining food stamps, contacting insurance companies, and applying for low-interest government loans. Emergency mass care tasks include: (1) service: providing food, clothing, shelter, medical and nursing care; (2) support: disaster fund raising and public information; and (3) equipment: supply

facilities, disaster communication and transportation. The responsibility for any one of these duties may be extended to the State Chapter if the disaster creates a long-term effect.

Salvation Army:

This is a national organization having both social welfare and religious orientations. There are three distinct types of local Salvation Army Units: the "Corps Program," the "City Command," and the "Service Unit."

A Corps Program is located in Acton and acts as a liaison to Salvation Army services elsewhere, if needed. This unit carries on activities of social, religious and welfare service, rehabilitation, and emergency and disaster service.

The City Command, located in Hamilton, handles casework and counseling, homemaker services, missing-persons bureau, emergency lodging, rehabilitation programs, correctional services, summer camp for underpriviledged children, and additional emergency services to the Corps Program.

The Service Unit provides aid to the community in the form of glasses, dental and medical care, and Christmas baskets for the needy.

In a disaster situation, the Salvation Army has experience in providing temporary housing, meals, and clothing to the needy and money for individual emergencies. The Salvation Army can provide a wide range of assistance, including counseling and spiritual support, emergency welfare services, a missing-persons bureau, medical aid, food, clothing, and shelter. Further, additional organizational personnel can be provided to maintain extended relief programs in a widespread disaster.

One of the organization's liabilities is its conflict with the Red Cross. Each provide overlapping services and struggle to be the "official relief organization" in an area.

National Guard:

This Armed Forces organization is subject to a great deal of misinterpretation of its involvement in disaster relief. The National Guard should only be activated in a life and death situation. All local resources in the area should be exhausted before calling out the National Guard. The authority to involve the Guard and its resources in emergency activities is invested in the state governor. Therefore, activation of the Guard requires that your staff contacts the mayor of the affected municipality who, in turn, will notify the county commissioners. The commissioners then must request the Governor to issue a declaration of emergency and contact the Adjutant General of the Armed Forces.

If the Guard can anticipate the onset of a disaster or if requested by local civilian authories, it will begin mobilizing troops and equipment. This process of mobilization may take several hours because many of the troops are part-time soldiers and each one must be contacted separately by telephone. In a sudden progressive disaster, the soldiers may act out of "eminent seriousness" and would respond immediately to local requests as nonpaid volunteers until an official declaration of activation is made.

Once activated, the soldiers are under the authority of your staff and will assist in such duties as the transportation of supplies and people, warning, mass-feeding, search and rescue, emergency medical treatment, restoration of community services, and the maintenance of order.

The two National Guard units at your disposal are the State Armory in Hamilton, which is primarily staffed with administrators, and the Training Camp in Clarke County which has a Medical Detachment available for physician/nurse teams or medical supplies.

Media:

KXXL A.M. Radio in Acton

KPYJ F.M. Radio in Acton

KPXA-TV Channel 21 in Acton

KPIN-TV Channel 13 in Acton

These area stations possess written agreements with the District 4 police departments, fire departments, school districts, and, in the case of a potential or actual disaster, with your staff to broadcast any valuable information to the public. The radio and television stations must first verify the information before releasing it on the air. A good source of verification of any information would be the police department. The school districts and some associations and businesses release their information after initially giving a specific code word identifying them to the broadcasters. The media may be called upon to broadcast such things as road closings, school and business closings, the cancellation of events or meetings. weather bulletins, or public service information. By law, these stations are also required to be part of the Emergency Broadcast System. For a full explanation of this system, see Appendix B.

Utility Companies:

Edison Gas and Electric Company for Woodline County:

Located ten miles west of the District 4 border. In a disaster situation, this company's first priority is to deal with customer problems and maintain the proper gas and electricity supply to the area. This would include repairing any downed power lines, ruptured or obstructed gas lines. In a situation in which its customers may be in danger of electrocution or asphyxiation, the company will issue warnings with the help of local radio or television stations. The company can deenergize or reenergize large areas of its territory and can provide emergency power to a facility if requested by your staff. Furthermore, this company is a good source for high-powered search lights driven by gasoline-powered generators.

Transamerican Telephone Company:

The regional office of the phone company serving the entire district is located ten miles above the northwest corner of the district. In a disaster situation, the company's first priority is to maintain service to its customers. However, with advance notification, the company can connect additional lines to some areas. If landline communications are down in an area, the telephone company can also provide radio telephone service to a facility.

Medical Personnel:

During a disaster situation, a team of two physicians and three nurses from each of the three primary health care facilities in District 4 (The John Wallace Memorial Hospital, Acton General Hospital, and Greendale Hospital) help to coordinate, under your authority, the area's main emergency medical care services. They focus their attention on the mobilization and coordination of hospital personnel, the care of incoming injured, and the available courses of action within their facilities.

The team from a directly endangered hospital is in charge of: (1) classifying all nondischargeable patients (for transporting purposes) according to the seriousness of their illness; (2) contacting area hospitals to inquire about the number and type of unoccupied beds in their facility; and (3) insuring the efficient transfer of all appropriate X-ray films and medical records to the nonaffected facilities.

The representatives from any nonthreatened hospital will prepare for an influx of injured. In turn, they will identify which of their patients could be discharged to their homes or nursing homes, in order to make room for incoming emergency patients. In addition, the team must keep a close inventory of the amounts of needed medical supplies.

The Laurel VA Hospital and the Danby County Hospital can be used by you and your response team as resources for additional physician/nurse teams and medical supplies.

Transportation Companies:

The transportation companies in District 4 consist of school, public, and charter bus companies. The school transportation companies of Acton, Greendale, Pine Valley, and Lakemont are responsible for transporting the area school children (grades K-12) from designated stopping points to the school buildings and back. During a school emergency, the transportation companies are responsible for contacting the appropriate drivers in order that they can transport the children to a particular facility or a designated "safe" school (see Appendix D).

The Royal Charter Bus Company located in the business district of Acton (east of the Acton River) has entered into a written agreement with Emergency Control District 4 to provide any available charter buses and drivers that may be needed to facilitate the speedy evacuation of schools, nursing homes, hospitals, or special centers.

The public transportation companies serving Acton, Greendale, Redmond and the Pine Creek Area are required by your authority to discontinue regular service in an affected area during a widespread emergency.

* * * * * * * * * * * * *

The manpower, vehicles, and equipment which can be made available to you by your response team in an emergency are detailed in Part C of this manual.

DISTRICT 4 RESOURCE LIST:

Available Manpower, Vehicles and Equipment

Municipal Police Departments:

The Pine Creek Area: (Quadrant location GF81)

Personnel: 20 full-time officers
5 auxiliary personnel for parades, etc.
4 full-time dispatchers
3 shifts covering 24 hours equally (at times may assign more officers on day shift or on 4:00 p.m. - 12:00 a.m. shift)

Vehicles: 4 marked cars
1 canine unit
2 unmarked cars
1 mobile public address system

Redmond: (Quadrant location EF70)

Personnel: 24 full-time officers
4 part-time officers
3 dispatchers
3 shifts covering 24 hours (extra personnel are placed on 2:00 p.m. to 10:00 p.m. shift)

Vehicles: 4 marked cars
3 unmarked cars
1 mobile public address system
1 motorcycle

Greendale: (Quadrant location BR72)

Personnel: 65 full-time officers
no part-time personnel
6 dispatchers
available 24 hours on a 3-shift schedule

Vehicles: 12 marked cars
4 unmarked cars
1 mobile public address system
3 motorcycles

Acton: (Quadrant location BT33)

Personnel: 80 full-time officers
15 auxiliary personnel, normally called out for community functions to carry out security measures
no part-time personnel
10 dispatchers
available 24 hours on a 3-shift schedule

Vehicles: 18 marked cars
4 unmarked cars
2 vans
1 canine unit
5 motorcycles
1 mobile public address system

State Police:

Woodline County: (Route 10 north of District 4)

Personnel: 35 troopers

24-hour coverage over 3 shifts (7 a.m. - 3 p.m., 3 p.m. - 11 p.m., 11 p.m. - 7 a.m., with several overlapping shifts to assure availability of personnel during shift changes)

Vehicles: 7 marked cars

2 unmarked cars

6 motorcycles

Clarke County: (East-central section)

Personnel: 40 troopers

24-hour coverage over 3 shifts (7 a.m. - 3 p.m., 3 p.m. - 11 p.m., 11 p.m. - 7 a.m., with several overlapping shifts)

Vehicles: 6 marked cars

3 unmarked cars

6 motorcycles

Adams County: (Central section)

Personnel: 25 troopers

24-hour coverage over 3 full-time shifts (with several overlapping shifts)

Vehicles: 4 marked cars

1 unmarked car

5 motorcycles

Danby County: (Southern section)

Personnel: 50 troopers

24-hour coverage over 3 shifts

Vehicles: 7 marked cars

3 unmarked cars

6 motorcycles

State Police-Aviation Division:

Clayton: (Northwest Clarke County)

Personnel: 3 pilots
5 Med/Evac technicians
24-hour coverage

Helicopters: 1 2-litter

Cedar Springs: (Western Springfield County)

Personnel: 4 pilots
4 Med/Evac technicians
24-hour coverage

Helicopters: 1 3-litter

Monroe: (Central Danby County)

Personnel: 3 pilots
4 Med/Evac technicians
24-hour coverage

Helicopters: 1 3-litter

Lafayette: (Southern portion of the State)

Personnel: 4 pilots
5 Med/Evac technicians
24-hour coverage

Helicopters: 1 2-litter

Auburn: (Southeastern portion of the State)

Personnel: 4 pilots

6 Med/Evac technicians

24-hour coverage

Helicopters: 1 8-litter

Fire Departments*:

The Pine Creek Area: (Quadrant location FN86)

Personnel: 30 fire-fighters, all volunteers
1 EMS rescue squad (see below)

Equipment: 2 pumper engines
1 mini-pumper (for brush fires)
1 heavy-duty rescue engine
1 hook and ladder engine

Redmond: (Quadrant location DV72)

Personnel: 40 fire-fighters, all volunteers
2 EMS rescue squads (see below)

Equipment: 4 pumper engines
1 hook and ladder engine

Greendale: (Quadrant location BR77)

Personnel: 25 full-time fire-fighters
30 volunteers
3 EMS rescue squads (see below)

Equipment: 6 pumper engines
2 hook and ladder engines
1 rescue van

*Please note that Fire Departments in all localities must remain free to handle their primary responsibility, that of fighting fires. Therefore, their availability to you in other emergency tasks may be limited or absent.

Acton: (Quadrant location BW16 and BY42)

Personnel: 75 full-time fire-fighters, including fire chiefs and officers

5 EMS rescue squads (see below)

Response team to a general call: 15 fire-fighters and 3 officers

In a 2-alarm or 3-alarm fire, 2 additional multiples of this team can be activated

Equipment: 4 pumper engines

2 aerial truck engines

Note: Personnel and equipment are fairly evenly divided between the two stations.

EMS Ambulance Units*:

The Pine Creek Area: (Quadrant location FN86)

Personnel: 2 full-time Emergency Medical Technicians (EMT)
15 volunteer EMT's

Equipment: 1 ambulance with basic support equipment

Redmond: (Quadrant location DV72)

Personnel: 8 full-time personnel (includes 7 EMT and 1 paramedic)
6 additional EMT volunteers

Equipment: 2 ambulances with basic support equipment
1 medic unit (a nonpatient transport station wagon which carries life support machinery and paramedics to the scene.)

Greendale: (Quadrant location BR77)

Personnel: 10 full-time (includes 8 EMT and 2 paramedics)

Equipment: 2 ambulances with basic support equipment
1 advanced life support

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*EMS ambulance units in all localities are available for service (either on duty or on call) 24 hours/day.

Acton: (Quadrant location BW16)

Personnel: 20 full-time personnel (includes 12 EMT and 8 paramedics)

Equipment: 5 ambulances (4 basic units, 1 advanced life support unit)

1 full staff, consisting of a 2-3 person crew (1-2 EMT's and 1 driver), is available immediately. All 5 ambulances can be staffed in 20 minutes. The crew of the advanced life support ambulance includes 2 paramedics and 1 driver.

The EMS unit also includes a water rescue team consisting of a 3-person crew. They have available to them 4-6 boats at one time.

Department of Public Works:

Redmond and Pine Creek Area: (Quadrant location EK73)

Personnel: 15 full-time employees

10 additional summer employees

Equipment: 2 garbage trucks

2 dump trucks (with one snow plow attachment)

2 bucket trucks

1 front-end loader

1 pickup truck

Greendale: (Quadrant location BN73)

Personnel: 75 full-time personnel

Equipment: 3 garbage trucks

1 street cleaner

4 dump trucks (with two snow plow attachments)

1 crane

2 front-end loaders

2 drills

1 pickup truck

Acton: (Quadrant location BV10)

Personnel: 262 full-time employees

25 part-time employees during the summer months

The department is organized into 4 utility divisions: steam generation, sewage, water and sanitation. Also included are a bureau of streets, city building maintenance and traffic engineering.

Equipment:

5 bucket trucks

7 front-end loaders

2 street cleaners

4 garbage trucks

3 pickup trucks

1 flat-bed truck

1 forklift

2 cranes

4 drills

6 dump trucks (with 4 snow plow attachments)

5 bulldozers

The Red Cross:

Local Chapter in Acton: (Quadrant location CA79)

Personnel: 18 professional staff members

614 volunteers distributed throughout the 6 divisions of the organization

Equipment: Have the necessary facilities and resource list of personnel and items needed to provide mass feeding, temporary shelter, temporary care facilitites, and/or a central information and counseling center. The resources available to the Chapter include many representatives of private enterprise, including retail stores and the service industry.

State Chapter in Hamilton:

Personnel: 40 professional staff members

Equipment: Has a detailed resource list of available physician/nurse teams, warehouse of medical supplies, canned foods, blankets, cots, linens.

Salvation Army:

Acton: (Quadrant location BR35)

Personnel: 4 full-time professionals

2 part-time professionals

55 volunteers

Equipment: 2 canteens (field kitchens)

Hamilton:

Personnel: 24 full-time professionals

Can activate 543 volunteers from local corps programs

Equipment: Cots, blankets, supply of canned foods

The National Guard:

Training Camp in Clarke County:

Guardsmen: 300-350 men are at the camp at a given time (present for 4-week training periods)

An additional 100 men are present on weekends

42 medical detachment personnel

Equipment: 6 helicopters (12 guardsmen)

4 helicopters (6 guardsmen)

2 water crafts (10 guardsman)

40 4-wheel drive vehicles

Warehouse of medical supplies

9 trucks

6 buses

Armory in Hamilton:

Guardsmen: 35 administrative officers

An additional 200 part-time soldiers are on the roste

Equipment: 2 helicopters (6 guardsmen)

15 4-wheel drive vehicles

4 trucks

3 buses

Area Hospitals*:

Acton General Hospital:

Satellite hopsital possible by using the nursing students' dorm (85 beds). Standby coal-fired boiler provides steam to operate steam generator.

Greendale Hospital:

Emergency store of 50 rollaway cots plus 40 mobile surgical units with linens, blankets, bedpans, shock blocks, dressings, surgical instruments, and infusion arm boards needed for emergency surgical treatment.

John Wallace Memorial Hospital:

District 4 emergency services maintains a completely equipped 200-bed packaged hospital with two 40 kw emergency generators. In addition, the District maintains a stockpile of supplies including antibiotics, vaccines, gauze, sponges, paper goods, soaps, disinfectants, diapers, cots, linens, and baby formula. A 120,000 gallon concrete water reservoir and an additional 75 kw electric generator are also available to the hospital.

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*Hospital resources described here are only those which go beyond normal hospital supplies and equipment and are intended for use in a large scale emergency or disaster.

Area Radio Stations:

KPYJ-FM (Acton) Common Program Control Station-1*:

Hours on the air: 5:00 a.m. to 1:00 a.m.

Facilities: Telephones, EBS transmitter, CBS Network Communication, UPI, emergency electric power generator 30 kw, AP Wire

*Note: For explanation of Common Program Control Station-1, see Appendix B

KXXL-AM (Acton) Secondary Station:

Hours on the air: 5:30 a.m. to 12:15 a.m.

Facilities: NBC Network, AP Wire, telephone, EBS receiver, 10 kw emergency power generator

Area Television Stations:

KPXA Channel 21 in Acton:

Hours on the air: 6:00 a.m. to 4:00 a.m.

Station Contact: Manager

Facilities: Telephone, EBS receiver, ABC Network, AP Wire

KPIN Channel 13 in Acton.

Hours on the air: 6:00 a.m. to 2.00 a.m.

Station Contact: General Manager

Facilities: Telephone, EBS receiver, NBC Network, UPI

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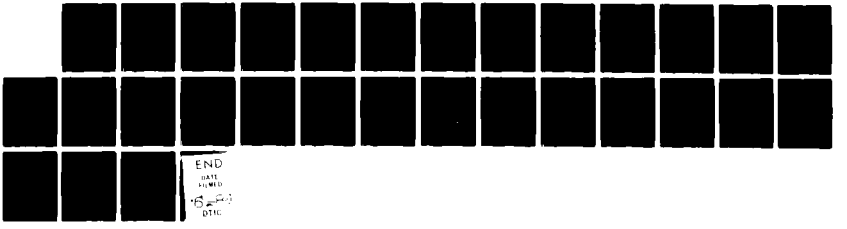

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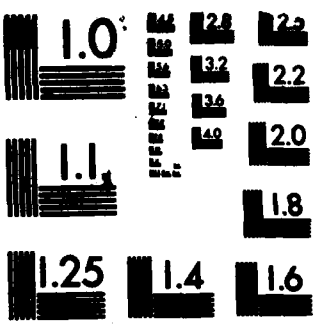

Utilities:

Edison Gas and Electric Company for Woodline County:

Equipment: High-powered search lights

Emergency power line supply

Gasoline-powered generators

Transamerican Telephone Company:

Equipment: Large supply of radio telephones

Additional cable for emergency telephone line service

Sources for Additional Vehicles for Transport and Evacuation Purposes:

School Transportation Companies serving the:

Acton School District:

Location: CX25

Number of available buses: 40 (72 child-passenger), 4 (24 passenger), 2 (10 passenger), 3 cars

Personnel: 30 men (8 hours a day), 5 (6½ hours a day), 5 (3½-6½ hours a day)

Greendale School District:

Location: BB72

Number of buses: 25 (72 child-passenger), 3 (24 passenger), 1 (10 passenger) van

Personnel: 19 on a daily basis/some used for 2 routes

Pine Valley School District:

Location: EX74

Number of buses: 22 (72 child-passenger), 1 (10 passenger) van

Personnel: 19 full-time, 5 auxiliary drivers

Lakemont School District:

Location: CU96

Number of buses: 20 (72 child-passenger), 2 station wagons

Personnel: 18 full-time (6½ hours a day) drivers

Public Transportation Companies serving:

Acton:

Location: BM13

Number of buses: 47 (54 passenger)

Personnel: 40 full-time/15 auxiliary

Service: Most routes are served from 4 a.m. until 9:00 p.m./
a few run until 12:00 midnight

Greendale:

Location: BB68

Number of buses: 26 (46 passenger)

Personnel: 25 full-time/5 auxiliary

Service: 5 a.m. to 7 p.m.

Redmond and Pine Creek Area:

Location: EX72

Number of buses: 25 (48 passenger)

Personnel: 20 full-time drivers/10 part-time drivers

Service: 5 a.m. to 7 p.m.

Royal Coach Charter Bus Company in Acton:

Location: BT32

Number of available buses in emergency: 45 (42 passenger)

Personnel: 40 full-time drivers
13 part-time drivers

OPERATIONAL PROCEDURES OF COMMUNICATION

For day-to-day emergencies in District 4 the police departments, fire departments and EMS ambulance units perform their functions independently and on their own authority. However, in the event of a disaster or broad emergency creating an increased case load, all the available personnel and equipment must be coordinated by your staff.

IN THE COURSE OF EMERGENCY DUTY, YOU AND YOUR STAFF MAY DECIDE UPON ONE OR MORE OF THE FOLLOWING ACTIONS: ALERT, WARN, REQUEST, ORDER, DISPATCH, EVACUATE, AND/OR OBTAIN INFORMATION.

Each of these actions is separately discussed below.

ALERT:

You can alert the residents in a certain area, the business districts, the school districts or the special facilities (hospitals, nursing homes and special centers), the police, and the National Guard to be aware of changing conditions in the area or, as in the case of the schools, of certain procedures that should be implemented.

This can be done in several ways:

Landline Telephone:

If you request that a particular group or organization (party A) be alerted by telephone, your staff will attempt to make direct contact with party A. If for some reason this is

impossible, (for example, because of downed lines or busy lines) they will contact party B in another town and ask them to contact A. You should keep informed of conditions affecting the telephone situation.

Police Courier:

Using a courier would involve contacting the respective police departments, which in turn would radio one of their patrolmen (in a patrol car or on a motorcycle) out in the field to relay the appropriate message to party A. This procedure, of course, will take more time than making a telephone call.

Local Police Patrols:

Activating local police patrols in an area can be done by contacting the appropriate police department which would, in turn, either send from the station or dispatch from the field several cars, each with a pair of officers, to the residents of the particular area to notify them of conditions. This form of communication could take a considerable amount of time.

Radio:

Two-way radio communication between your office and all emergency personnel is available. A full explanation of this system is found in Appendix C.

Note: Radio communication, on the average, takes the same amount of time as a telephone call.

WARN:

You can warn the hospitals, Red Cross, Salvation Army and the Department of Public Works of conditions in your area. This warning procedure can be carried out by the following means:

Radio

Police Courier

Telephone

REQUEST:

You can request various members of your Emergency Response Team, such as the representatives of fire departments, municipal police departments, State Police, Red Cross, and Salvation Army, to put their respective staffs on alert or to monitor threatening area conditions. You also have the authority to contact the Department of Public Works (DPW), the media, or transportation companies if you feel their services may be needed to aid in a potential disaster. You can request the mayors of the municipalities to help in organizing the recruitment of additional personnel. In an emergency or disaster situation, you have the authority to request medical aid from the resources available to you (see Part C), service from DPW and the utility companies, or cooperation from the media in distributing pertinent information. If you feel that certain needed items can be supplied by area residents or businesses, you can request aid from these populations.

The means by which you can request help include all of the channels described above. Keep in mind that all disaster and emergency personnel can be reached via radio or telephone communications. Other individuals such as building owners and administrators of various organizations who are not part of the radio system can be alerted by telephone or police courier. Larger populations of people can be notified using radio/TV broadcasts. The Department of Public Works can be reached through an independent phone line which is not electrically switchboard dependent.

ORDER:

You have the authority to call in the Emergency Response Team for District 4 and have them available to you to perform various duties. You can reach the members of the team by telephone (either by calling their residences or places of employment) or by sending police couriers to contact them.

DISPATCH:

Under the threat of or the condition of a disaster, you have the sole coordinating function and responsibility to dispatch various emergency personnel for needed assistance. You can dispatch the following:

Municipal Police - to send patrols to a needed area

State Police - to aid and control traffic during evacuations

EMS Ambulance Units - for ambulances and medical aid

Med/Evac Helicopters - for transport or medical aid

Departments of Public Works - to make necessary repairs in the municipalities

Transportation Companies - for needed vehicles and personnel

Fire Departments - to fight fires or for additional assistance if they are available

National Guard - for additional emergency personnel

State Police-Aviation Division - for needed helicopter assistance

EVACUATE:

If you feel the need arises to evacuate certain facilities or segments of the population, this order must be communicated by you to the affected persons. You can notify a specific facility, such as a hospital or school building, of your plan to evacuate through telephone or police courier communication.

Please refer to Appendix D for the evacuation procedures for the schools, hospitals and special facilities. However, to evacuate larger areas of the population, the following methods can be employed:

1. Activating town or city sirens: either factory or fire sirens will be sounded for 3-5 minutes with a steady, uninterrupted tone.

2. Use of the EBS on radio or television: See Appendix B for a full explanation of the EBS.

3. Using police mobile public address systems.

OBTAIN INFORMATION:

At any time during the course of your authority, your staff can obtain pertinent information for you to help you make decisions and coordinate activities. The response to your inquiry will be the latest information available at the time it is communicated - not at the time you requested it. You can obtain:

Water levels of.....

The Pine Creek

The Pine Creek Mining Company Dams

The Acton River

The Lanapi River

Area reports on.....

The Pine Creek Area

The Acton Area

The Greendale Area

The Redmond Area

Area road conditions in.....

The Pine Creek Area

The Acton Area

The Greendale Area

The Redmond Area

WATER LEVELS

	Average Level	Overflow Level	River Width
Along the Pine Creek:			
Baylor	14 inches	20 inches	30 feet
Colton	18 inches	24 inches	35 feet
Pine Valley	18 inches	24 inches	35 feet
Along the Acton River:			
Acton	18 feet	23 feet	1/2 mile
Greendale	20 feet	26 feet	1/3 mile
Along the Lanapi River:			
Browning	59 inches	65 inches	22 feet
Marlin Point	59 inches	65 inches	32 feet
Johnsborough	59 inches	65 inches	47 feet
Pine Valley	62 inches	70 inches	59 feet
Redmond	66 inches	72 inches	63 feet
Acton	61 inches	65 inches	69 feet
Pine Creek Mining Company Dams:			
Dam No. 1	18 feet	20 feet	
Dam No. 2	18 feet	20 feet	
Dam No. 3	40 feet	45 feet	

EMERGENCY BROADCAST SYSTEM (EBS)

EBS was initially established in 1964 for the purpose of allowing the President of the United States to warn Americans in the event of war or national crises. Within the last fifteen years, it has been expanded to be used on a day-to-day basis for state or local emergencies in order to release warnings, pertinent information, or evacuation procedures. In the last year, the FCC has reports of over 650 activations taking place; however, the actual use may be even higher since the FCC does not require a report of each EBS activation. The Emergency Broadcast System has been used for these emergencies: Tornado warnings, flash flood warnings, severe snow storm warnings, earthquakes, widespread power failures, fire, industrial accidents, fuel pipeline ruptures, accidents at gas, electric, and nuclear facilities, and civil disorders. The persons or organizations who can activate the EBS are the President, the Governor, the National Weather Service, the Federal Emergency Management Agency, the district disaster coordinators and the Federal Communications Commission.

The activation of the EBS takes place as follows: Any of the above authorities can contact either the primary relay station for the state (KMLV-FM in Hamilton), for a statewide emergency, or the Common Program Control Station-1 (KPYJ-FM in Acton), for a local emergency. For a national emergency, the CBS radio network would activate the state's primary relay station. Contact can take place through land-line communication or radio air signals. The primary relay station or the CPCS-1 station then emits a 2-tone audio signal which will be heard by all area radio (AM and FM) and television stations, known as secondary stations. The stations monitoring for this tone (which include all stations, by FCC

law) can then choose either to tape the following message and broadcast it as soon as possible or to interrupt normal programming and broadcast it live. The following message will then be heard on the public audio transmitting network: "We interrupt this program to activate the EBS for Distrct 4 because of a local emergency. Important information will follow. [...followed with emergency information...] This concludes EBS programming. This is the District 4 Broadcast System." Weekly transmission tests are required for each district. However, an actual activation of the system can be substituted for a weekly test.

RADIO EMERGENCY RESPONSE COMMUNICATIONS

Radio Emergency Response Communications in the District 4 Plan, as well as in the State Plan, requires three different categories of radio communications.

Category 1: Vehicle Coordination

Dispatch and control of the following emergency response vehicles:

1. Pine Creek Area, Redmond, Greendale, and Acton Police Cars.
2. Pine Creek Area, Redmond, Greendale, and Acton Fire Engines.
3. Pine Creek Area, Redmond, Greendale, and Acton EMS Ambulance Units.
4. Pine Creek Area, Redmond, Greendale, and Acton Department of Public Works Vehicles.
5. Woodline, Clarke, Adams, and Danby Counties State Police Cars.
6. Clayton, Cedar Springs, and Monroe State Police-Aviation Division Helicopters.
7. National Guard Medical Detachment Vehicles
8. National Guard Helicopters.
9. Public Transportation Company Vehicles

- Use these 2 UHF (ultra high frequency) pairs 462.950/467.950 mhz and 462.975/467.975 mhz
- For coordination of emergency response personnel at the scene, portable radio for personnel should be equipped with either 462.950 mhz or 462.975 mhz and transmit and receive on a single frequency.

Category 2: Medical Coordination

Physician/Emergency Medical Technician Talk and Telemetry Channel

The physicians who can be contacted are located in the emergency rooms at the John Wallace Memorial Hospital, the Greendale Hospital, and Acton General Hospital. Contact can be achieved through telemetry on MED-1 through MED-8, UHF channels so designed by the FCC. The area of District 4 uses MED-1 through MED-3.

Using MED-4 and MED-5, medical personnel at the Laurel VA Hospital and the Danby County Hospital can be contacted.

- The above channels can also be used as a one-way paging system for alerting and coordinating personnel.

Category 3: Resource Coordination

Point-to-point communications between emergency response facilities. With use of the VHF (very high frequency) channels of 155.340 mhz or 155.280 mhz, you can contact the following facilities:

1. All district municipal police departments
2. All district fire departments
3. All district EMS ambulance units
4. State police in surrounding counties
5. State police-aviation divisions
6. The National Guard
7. The Red Cross Chapters
8. The Salvation Army
9. All district hospitals

10. Public Transportation Companies
11. District Departments of Public Works
12. Area radio and television stations
13. Charter Transportation Company

EVACUATION PROCEDURES

Evacuation of the area schools:

Under each school's emergency procedures, the children are transported to the nearest "safe" school in the event of an evacuation. The corresponding "safe" schools are listed below for each school district. The order for evacuation for an internal school mishap, such as a fire, power outage, heating failure, etc., will come from the principal or supervisor of the school. However, in an emergency situation involving the municipality or city, you, as the disaster control coordinator, have the authority to order an evacuation of a particular building. The children must be held in the "safe" schools under school supervision until the parents are notified of the closing by radio broadcasts or telephone calls and arrangements are made to have the children picked up.

School Buildings of:	"Safe" Schools	Location
The Pine Valley School District	Greendale High School	DL59
	Greendale Elementary	CI70
	Lakemont Elementary	CU87
	Lakemont High School	DT83
The Acton School District	Greendale High School	DL59
	Greendale Elementary	CI70
	Laurel High School	DK6
The Greendale School District	Acton High School	CP33
	Pine Valley Middle School	ES88
	Lakemont Elementary	CU87
	Lakemont Middle School	BM96

The Preschools	"Safe" Schools	Location
Acton Day Care Center	Greendale Elementary	CI70
Acton YMCA Day School	Laurel High School	DK6
Pine Valley Little School	Greendale Middle School	BL78
ABC Day Care Center	Lakemont Elementary	CU87

Evacuation of Inpatient Residents:

The inpatients of nursing homes and the rehabilitation center are to be evacuated to the nearest hospital or nursing facility as required by State Law 95-3894. The destination of the evacuated patients of area hospitals is to be determined by you and your medical coordinator by evaluating the needs of the patients, the location and potential spread of the emergency, and the bed availability of area facilities. Each facility has a functional emergency disaster plan, coordinated by the administrator, for evacuation or for an influx of injured people.

Evacuation of Outpatient Residents:

In accord with the facilities' emergency evacuation plans, the outpatients of the Acton Mental Retardation Center and the Redmond Vocational Rehabilitation Center are transported to either the Laurel VA Hospital (FL15) or the Danby County Hospital (approximately 10 miles east of Monroe).

OFFICE OF THE GOVERNOR

STATE HOUSE

TO: Emergency Control Coordinator
District 4
Woodline County

RE: Placement on active duty

In view of the developing situation regarding the weather and its potentially serious consequences for your District, you are hereby called to active duty in the post of Emergency Control Coordinator. As such, you will now take responsibility for the management and control of any situation which may emerge.

For the Governor:

Richard P. Law

EMERGENCY CONTROL DISTRICT 4

Inter-office Correspondence

DATE: September 21, 1994
8:30 a.m.

TO: Emergency Control Coordinator
District 4

FROM: Associate Emergency Control Coordinator
District 4

Let me fill you in on the events that have taken place over the last 12 hours which led to your being called in for duty. I'll also give you an idea of the things I did and some of my ideas about what we could do in the future to follow up.

Good luck!

About 9:30 p.m. last evening, it was reported that some soil and several boulders had dropped from the slope onto Route 438. The debris was cleared by the Acton DPW.

At approximately 10:05 p.m., park rangers stated that the high water in the creeks of Green Mountain National Forest has forced the closing of roads running across creeks to higher elevations of the area.

Route 8 was closed between Hamilton and Greendale from 2 a.m. to 4:30 a.m. because of flooding in low-lying areas. Traveler's advisory because of poor visibility is still in effect. The State Police have advised that it may be necessary to close the road again if the water levels in low-lying areas increase.

The Pine Creek Area Municipal Police Department called about 6:45 this morning to report that the Lanapi River is carrying large pieces of debris (such as tree segments) that might damage bridges or dam up water behind bridges.

I have: Informed the DPW's and Fire Departments. They are taking care of the problem of keeping bridges free and water flowing.

Future plans: Monitor water levels.

The water in Lake Laurel has reached levels 6" below the dam crest. Floodgates may have to be opened to decrease water levels, raising concern for a few houses near the mouth of the Laurel River as it flows into the Acton River.

I have: Sent personnel to dam area to monitor water level.

Alerted quadrants CD/CE 1 and 2 of possible evacuations.

Potential plans: Order evacuation of CD/CE 1 and 2, if needed.

Send police to aid in evacuation.

At about 7:35 a.m., I sent personnel to check status of dams at Pine Creek Mining Co. Our people were ordered to leave the area by mining company officials. (Because of that long-standing dispute between the State and the company over pollution, etc., I guess we can expect little cooperation from them.)

Schools in the Greendale School District announced that they will open one hour late today because of poor visibility and rain. All other school districts will apparently open as usual.

TECHNICAL MANUAL

Welcome to the simulation. The task you are about to perform is a very important one. Appointment to the position of Emergency Control Coordinator is a great honor and carries much responsibility with it. Human lives and, of course, public and private property must be protected by your actions. It is quite important that you carry out your function responsibly and effectively.

You have been provided with an assistant who will operate the computer terminal for you. Through that terminal you will receive information about events in your district, in the county, and in the state. In addition, your assistant will utilize the terminal to transmit your decisions, your requests for more information, your plans, as well as other information, to those who are part of your staff and to locations outside of your office. Your assistant will cooperate with you. He or she will, where possible, inform you if some action you are considering cannot be accomplished. He or she will make incoming information available to you if you failed to notice it. However, your assistant will not, under any circumstances, be able to give you advice on what you should or might do next. The responsibility to make and implement decisions and the responsibility to plan for the future are entirely yours.

Your job as Emergency Control Coordinator will be carried out over a number of task periods, separated by rest periods. You will notice that time in the simulation will be going faster than it normally does. The current, simulated date and

time are always displayed on the upper edge of the television screen. After each hour of simulated time has passed, you will be allowed a rest period of a few minutes. You may be asked to respond to a few questions during the rest period. However, the primary purpose of that period is, indeed, to give you the opportunity to relax. Note, time will not progress during the rest periods. Nothing that might influence events in your district can happen at these times. Please do not work on your task during the rest period. Your assistant will inform you when the next task period is about to begin. The resources that are available to you have been discussed in some detail in the main manual. The actions in which you are able to engage have been described, as well. The charts on the wall of your office will give you additional information about the actions that you may decide to take. Unfortunately, time is too short to provide you with additional resources and options for actions beyond those that are listed on the chart. Your assistant is very familiar with actions that are or are not possible and will inform you if you consider a decision that is technically not feasible.

Planning is one of the foundations of success as an Emergency Control Coordinator. It is necessary to be ready for potential future problems with which one must deal. Therefore, it is important to make decisions that will make possible certain actions that you may want to take later. You are encouraged to plan your future actions extensively. When you make a decision, when you request information, or when you engage in any action

whatsoever that may be the basis for one or more future actions, please indicate to your assistant what those future actions are (even if the future action is only a possibility). Your future action plans will be entered into the computer. As a result, personnel that needs to know what you are planning will be informed and will be ready to assist you whenever they are called upon to carry out such a future action. By letting your assistant know what you are planning as you make any present decision, you will speed the implementation of a future decision, and you will make success in the future much more likely. Even when you are not quite sure whether you will actually make a decision which you are now considering, i.e., even if your plans are quite tentative, let your assistant know what you might do in the future as a follow-up to any action that is taken now.

Each time you engage in any action, your assistant will ask whether you did so on the basis of information you have received. If your action is based on past information (as it was displayed on the TV screen and then printed out onto hard copy), please let him or her know which items of information are relevant to this action. By entering the numbers of the information messages you receive and utilize into the computer, you will keep your staff informed about what information has been dealt with and what may have to be brought to your attention.

You will also be asked by your assistant whether any action that you decide upon at the present time had been planned earlier,

or, if not, whether the action was based on or related to any decisions you made earlier. The accurate identification of earlier related actions will again speed the implementation process of the current action. For example, if, in an earlier decision, you had alerted a particular school to expect a possible evacuation, the school would be better prepared to deal with the actual evacuation order when it comes. Telling them later that "this is the evacuation about which you were earlier alerted" will erase any doubt in their minds that this is the "real thing" and will get them into action immediately, assuming, of course, that you have made facilities to evacuate them (such as bus transportation) available as part of the same plan.

The length of time which will pass from the point at which you give an order to the point at which that order has been carried out will be quite realistic. You will find that people who are walking from point A to point B will take much longer that people who take a bus. A phone call or a radio communication will take practically no time at all. However, as we know, people are not always as cooperative as they could be. Sometimes you may, for example, ask for information or request some action. You may expect a rapid response. Yet, someone may be doing something else that he or she considers more important and things will not happen quite as fast as you wish. In this respect, as in all others, this simulation is quite realistic.

When you make any decision, your assistant will assume that you want that decision to be carried out as soon as possible.

should you not want that action to become effective immediately, then please state the number of hours and minutes by which the action should be delayed. The delay will be entered into the computer and the action will not be effective until that length of time has passed. You have been provided with blank forms which allow you to take notes on information received, actions you are taking, your plans, and so forth. Please feel free to use these for note taking if you find them helpful; you are not required to use these forms. It may be useful to jot down the number of any action or information as they are entered into the computer or received. You will find it easier to refer back to actions and information if they are numbered.

As already suggested, information arriving at your office will be displayed for a short time on the video screen. You will note its arrival by the short tone that you will hear as the information arrives and by the sound of the printer as it makes a permanent record of the information.

When your assistant enters one of your decisions or other actions into the computer, he or she will have to go through several steps. These steps are the same as the lines on the charts posted on the wall of your office. Once all information has been entered, the computer will display your decision on the screen: "You have made the decision to...." At this point, your assistant will advise you to check whether the decision has been entered as you requested. If you want to change the decision or if it has been entered incorrectly, you have the

option of having the decision cancelled. If you wish to cancel the decision, please say so and your assistant will enter a code letter that removes that decision text from the record.

The map of District 4 in your office is divided into quadrants. Major buildings and their quadrants are listed on the face of the map. Less important locations can be specified by quadrant location. For example, if you want to send someone to Pine Valley Elementary School, that person would have to go to Quadrant EY94. Please specify both name (where applicable) and/or quadrant of any location when you make a decision which affects that location. Your assistant will enter that location into the computer.

The Associate Emergency Control Coordinator, who has been in charge during the last few hours, has done his job quite well. He made a number of decisions in response to incoming information, planned and carried out a number of actions, and obtained needed information. His actions, the information he received, information he obtained through active search, and his plans are summarized on the following pages. A number of actions he took involved tentative plans for future actions that have not yet come to fruition. Fortunately, he kept excellent records about future plans. These plans list the actions he took and the later actions that were to be based on those actions. These lists are provided for you and are attached to this manual. You are free to implement those plans if you believe that they are useful. In case you should be called away before the potential problems

in District 4 have been entirely resolved, your successor will have your list of decisions and future plans available. Please, as stated before, make sure that your plans are extensively documented so that your successor will be able to carry on effectively and successfully.